Rosevean
VETERINARY PRACTICE

Farm Newsletter

Winter 2023

Bluetongue awareness - what we know

Following reports of a new strain of bluetongue virus (BTV-3) emerging and spreading rapidly in the Netherlands, there is increasing concern about the situation, especially following confirmed cases in Canterbury, Kent and Norfolk.

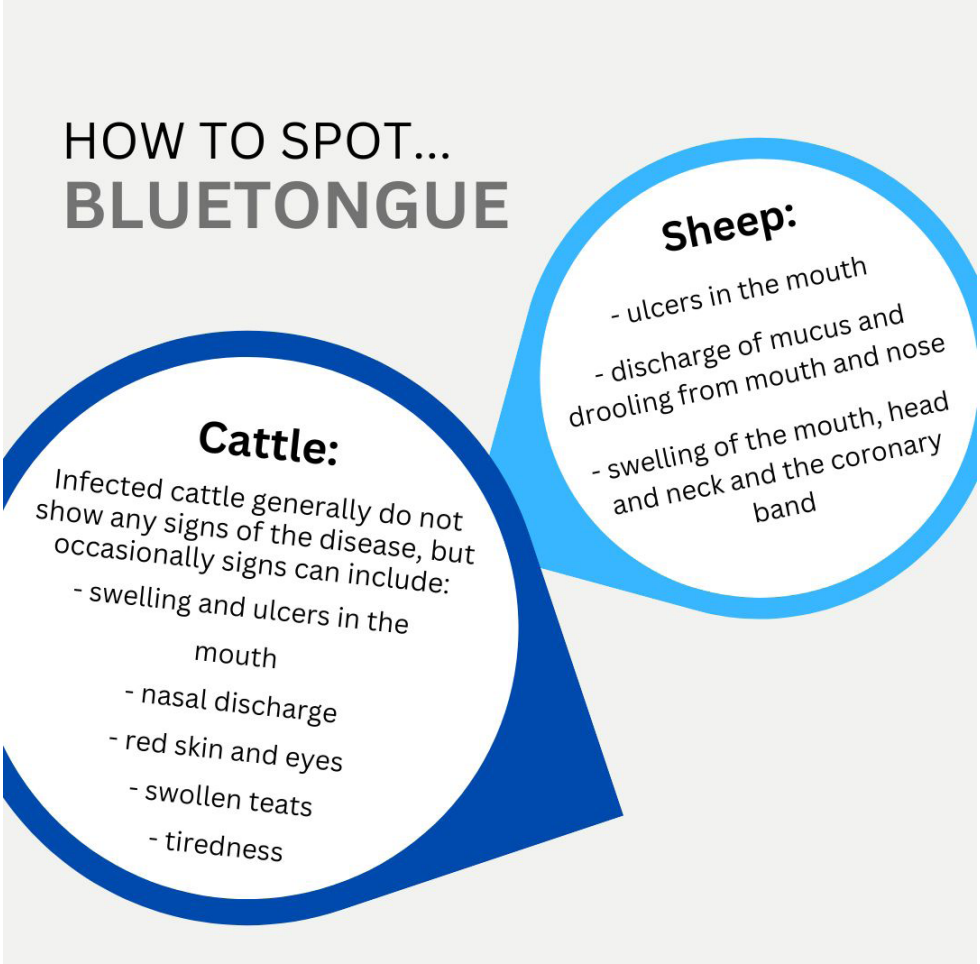
Ruminant Health and Welfare (RH&W) has facilitated emergency meetings, bringing together over 40 key stakeholders and representatives from across the industry, to ensure the UK is prepared for this emerging disease threat.

Their advice: "What we are advising is three-fold. Farmers need to beware when buying animals in, especially from Europe, take action to report any signs of the disease, and at all times, remain vigilant," - Dr Joseph Henry, president of the Sheep Veterinary Society and member of RH&W's steering group.

BTV-3 is a viral disease transmitted by biting midges, which affects all ruminants (e.g., sheep, cattle, goats and deer) and camelids (e.g. llama and alpaca).

The existing BTV-8 serotype vaccine will not offer cross-protection against this new BTV-3 strain, making any likely outbreak difficult to control. Hence why it's so important that we follow the advice to act and prioritise good biosecurity measures while remaining extremely vigilant to the disease at this stage.

It remains extremely difficult to protect against midges and a vector borne disease. However, there is always a role for good biosecurity and insecticides, but it's important to differentiate between products licensed for use on animals, and those designed for use on building and vehicles. Our vets can advise on this if you're unsure at all.



Due to the nature of bluetongue's ability to spread via infected midges, and recent warm weather conditions, the confirmed case in Canterbury, Kent was likely a result of spread across the channel. With temperatures hopefully dropping, the risk of UK spread should decrease, however, we must adhere to advice and do all we can to keep it out. Advice from the advisory group is to strongly advise farmers to beware when buying livestock, and to request pre-movement testing of animals prior to departure. All imports of live animals are subject to post-import testing with restricted movements until a negative post-import test result has been confirmed, so caution is key.

In this edition...

vetPartners

Symptoms of BTV-3 can vary across ruminant livestock, with sheep generally exhibiting more overt symptoms than cattle, but both can showcase clinical signs.

These include in sheep; drooling, mouth lesions, high fever, lameness and oedema (swollen heads) and sudden death. Cattle are not usually as severely affected but may show similar clinical signs as well as teat, eye, coronary band and nose lesions.

RH&W's advice to farmers:

1. Buyer beware, only source animals responsibly.
2. Take action, prioritise biosecurity and report any suspicious clinical signs.
3. Vigilance is key, monitor livestock closely.

Four ways to protect your livestock from TB

Bovine Tuberculosis (bTB) is still a significant challenge for beef and dairy farmers across the country. While routine testing of cattle in the UK is widely understood, it's important to recognise that sheep, goat and camelids are also at risk of bTB, and as such can require testing on government request.

We wanted to revisit and highlight the TBAS service which, when engaged with, can help you work towards cost effective plans to reduce your herd's risk. It's open to all registered keepers of cattle, deer, sheep, goats, pigs, or camelids in England – funded by Defra and led by independent vets.

As part of the TBAS service, you receive two free visits, three months apart. The first visit involves a detailed questionnaire to evaluate risks specific to your holding. We then work with you on four cost effective, practical recommendations to address those key risks.

Tips to help reduce the spread of TB

1. Invest in badger proofing

To lower the risk of bTB being transmitted indirectly to your herd's food sources by badgers and other wildlife, badger proofing your feed troughs, mineral licks as well as hard feed and forage stores is strongly advised. For example, raising cattle troughs just 1 metre is very effective and low cost, although consideration needs to be given when thinking about trough height if you are keeping sheep.

2. Increase your disinfection points

Given that bTB can survive for up to 6 months in faeces from infected animals, biosecurity is key. Think about how you can increase measures such as disinfecting hands, clothing and boots, for example by adding more foot dips with TB-approved disinfectants around your holding.

Look at your equipment hygiene too; are you cleaning clippers, hurdles and vehicles between your herds or holding sites? What else do you use that is being passed from herd to herd that shod be disinfected routinely?

3. Adapt stock fencing

Because bTB moves via air droplets that can be carried by up to three metres or more, exposure between your stock and neighbouring animals can be reduced by creating at least a 1.5 metre border each side of boundary fencing to create a three-metre gap between herds.

You should also be thinking about how fencing can also keep wildlife out. Badgers, for example could fit under a fence if there is as little as 7.5cm gap. Adding in electric fencing and lower-level fencing when planning grazing areas can make a big difference.

4. Break the cycle of being a source of food and water for wildlife

There are many innovations to prevent badgers accessing the palatable forage and feed you provide, but simply reducing the interface between wildlife and your herd by breaking their habits can pay dividends.

An example is ensuring unused water troughs are emptied and feed areas are clean and tidy, feed store lids are firmly in place or raised up high and doors are firmly closed.

TBAS can help farmers produce Defra funded badger set maps which will help you identify where they are located and the routes they take on your farm.

If you are a registered keeper of cattle, deer, sheep, goats, pigs, or camelids in England, and have a CPH number, you will qualify for free telephone advice or a free set of visits. If you don't have a CPH number, contact TBAS to discuss whether a visit might still be possible: www.tbas.org.uk

Visit apha.defra.gov.uk to enter your holding number to help you find out more about testing, legislation, and what risk area you are in

Another useful tip is to check ibTB.co.uk, which maps bTB outbreaks in England and Wales - here you can look up a seller's TB history.

In this edition...

Preventing clostridial disease

Clostridial disease poses a serious threat to unvaccinated sheep. With vaccines costing as little as 50p a head, it is not a risk worth taking ahead of the lambing season.

We would encourage all our sheep clients to vaccinate your flock against clostridial disease to prevent unnecessary lamb deaths.

Last year, we had a number of vaccine supply issues. We have not heard that this will be the case again this year, however, we would urge you to think ahead with numbers so if supply issues do arise we can work to secure your stock, or alternatives where possible.

The National Office for Animal Health (NOAH) categorises vaccination for clostridial disease as the highest priority for sheep. This means flocks should be vaccinated as a default unless your vet deems otherwise.

Vaccination advice

Most vaccines require ewes to be given an initial course, then a booster four to six weeks before lambing to ensure their offspring obtain sufficient passive immunity – whereby antibodies are transferred from the ewe to her lambs.

The duration of protection differs depending on which vaccine is used and the type of clostridial disease.

Typically, passive immunity against blackleg – one of the most common clostridial disease – only lasts about two weeks, so farmers shouldn't delay in vaccinating lambs with their primary course.

Get in as early as you can with the vaccine to make sure lambs have protection. Most vaccines can be used from three weeks of age.

Vaccine timing can be difficult to coordinate when catering to a wide age range of lambs, but it can be achieved after discussion with your vet. If you can do them in groups, then do them, or, if you can't, you must consider when your biggest risk period is and treat lambs before this.

It's about speaking to your vet and deciding the best timing for your flock. The biggest danger is thinking you don't have clostridial disease and doing nothing.

What is clostridial disease and what triggers an infection?

Clostridial diseases are caused by organisms called clostridia that live in the environment, most commonly soil, for a long period of time.

Most of the organisms occur naturally in the gut of a healthy animal and pasture becomes contaminated via faeces.

It's not uncommon to see blackleg on farms that have never had previous issues, including farms which can go years and years without an issue, and they might start using a new field and they will get an outbreak.

Other key points to remember when vaccinating:

- Avoid needle contamination
- Reduce stress where possible
- Dry fleeces make vaccination more effective
- If you have a long lambing block, consider splitting ewes into two groups to maximise protection for later lambing ewes

Colostrum management

Good colostrum management is also key to ensuring lambs receive adequate protection within the first few weeks of life. If you vaccinate your ewes, but lambs don't get enough colostrum, they won't get protection.

Lambs must have 50ml per kilo of liveweight within the first two hours of birth – for example, lambs weighing 4kg must drink at least 200ml - this is not easy to quantify, but a simple test is checking the lamb has a full belly.

Colostrum must also be good quality, and to test this, you can use a refractometer to ensure colostrum offered measures more than 22%. It is not necessary to test every ewe – a percentage of the flock is adequate – depending on your flock size, as well as how many groups are run and how many rations are fed.

By the time you have colostrum, there's not a lot you can do about it; you've got what you've got. But if colostrum is poor quality, and you have more to lamb you can adjust their diets, or it might be a good reason to vaccinate lambs early.

There's no substitute for ewe colostrum and seeing that lamb up and suckling in the first few hours.

Post-mortems

Sudden deaths should always be investigated with a post-mortem. Often, the first time the post-mortem comes back inconclusive which is frustrating, so farmers often give up. But if you don't do the first one you can't do the second, so we'd encourage people not to give up. Remember, finding out what hasn't caused the death can be just as important as finding out what has.

Get carcasses sent off as quickly as possible to get the best results and keep them cool to prevent decomposition.

In this edition...

Coronavirus – An important pathogen in bovine respiratory disease

Paul Burr - Biobest Laboratories

Bovine Respiratory Disease (BRD) is responsible for substantial welfare and economic costs to both the beef and dairy sectors of farming worldwide. The costs of each outbreak include deaths, medicines, extra labour on farm and veterinary input, plus the impact on liveweight gain and feed conversion efficiency from irreversible lung damage. BRD has long been recognised as a multifactorial disease, with multiple causative agents and management factors involved in outbreaks (see image).

Bovine Coronavirus (BCoV) has generally not been considered a significant contributing pathogen in the BRD complex in the UK despite a growing body of evidence worldwide demonstrating both its presence and clinical importance in the syndrome. Based on the evidence (outlined below), it's an area for further consideration when it comes to BRD outbreaks on farm.

BCoV is a common virus that infects the respiratory tract and intestines of cattle. The same virus strains are associated with calf diarrhoea, winter dysentery in adults, and pneumonia. Thankfully, genetic changes like those seen in pig respiratory coronavirus do not seem to occur with BCoV strains.

What evidence is there for BCoV's growing role as a primary pathogen in BRD?

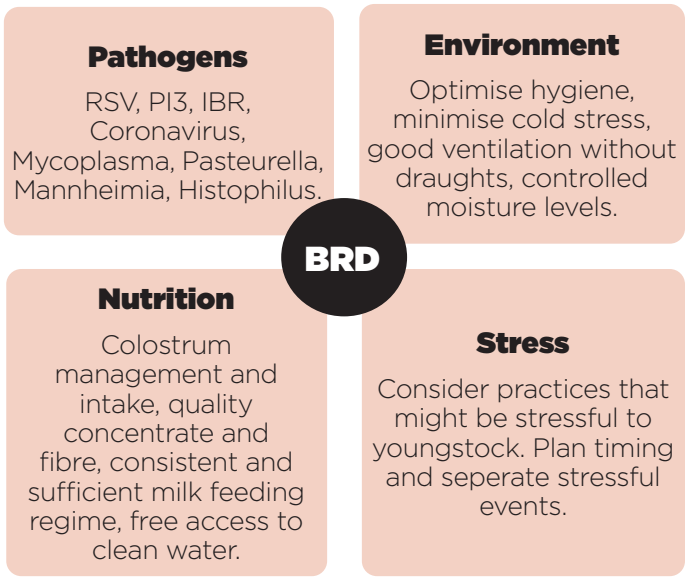
- BCoV was identified in pneumonia outbreaks back in the 1980s and linked to mild respiratory signs when injected into calves.
- With PCR testing, BCoV is now frequently detected in the damaged lung tissue of cattle with pneumonia, usually along with other viruses and bacteria.
- Recent surveys found BCoV in 22.9% of Irish and 39% of UK respiratory samples, making it the most prevalent virus detected (Biobest in association with MSD and University of Glasgow)
- BCoV often precedes secondary bacterial pneumonia infections caused by Mannheimia, Pasteurella and Histophilus species.
- Experimental BCoV inoculation causes cough, depression, fever, and lung lesions typical of BRD.

BCoV infection is common year-round but peaks in winter. It persists in the environment and spreads via fomites. Extended viral shedding enables intra-herd transmission between animal groups.

The train of thought is now that BCoV precedes wider BRD infections, so how can we control it better?

- Enhance biosecurity between herds and within groups.
- Improve calf environment and colostrum intake.
- Recognise BCoV's tendency for prolonged shedding and transmission between ages of cattle.
- Include BCoV when investigating BRD outbreaks to inform treatment and future prevention.
- Consider vaccination possibilities – no vaccine currently licensed for the UK, however this may be coming soon. A new live intra-nasal BCoV vaccine which has been proven to reduce shedding, clinical signs and lung lesions caused by BCoV and can be used concurrently with existing RSV/PI3 vaccines is expected to be available in the UK in Winter 2023 (van Rooij et al 2023).

In conclusion, bovine coronavirus is an important but under-recognized contributor to costly BRD outbreaks in cattle. Increased awareness and testing for BCoV as a primary respiratory pathogen, plus updated biosecurity and vaccination approaches, will be key to controlling BRD impact and improving cattle health and performance.



If you would like more information on what we've discussed in this month's newsletter, please speak to any of our farm veterinary team.

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