



## Autumn 2024

We hope you've all had a good, albeit somewhat soggy summer! Autumn is bringing the challenge of Bluetongue, but we will guide you through it as best we can. Otherwise, we are looking forward to working with you throughout the next season.

The Livestock Clinic Team

### Bluetongue Update

Bluetongue virus mainly infects **sheep** and **cattle** but other ruminants such as **deer**, **goats**, and **camelids** can also be infected. The virus is responsible for causing the severe haemorrhagic disease, Bluetongue (BT), which causes various signs depending on the species involved. The virus is transmitted through **Culicoides midges** therefore it can spread long distances by wind dispersal. Importantly, it does not affect people or food safety, but outbreaks will likely result in prolonged animal movement and trade restrictions to limit its spread.

#### Signs to look for:

(Sheep are more likely to show obvious signs than cattle)

- **Ulcers** or **sores** in the mouth and nose
- **Discharge** from the eyes or nose and **drooling** from mouth
- **Swelling** of the lips, tongue, head and neck, and the coronary band.
- General ill health signs such as fever, lameness, abortions, foetal deformities, stillbirths, and death.

In cattle, Bluetongue manifests with signs of lethargy, crusty erosions around the nostrils and muzzle, redness of the mouth, eyes, nose, and skin above the hoof, nasal discharge, reddening and erosions on the teats, fever, milk drop, abortion, foetal deformities, and stillbirths. However, adult cattle may be infectious for several weeks while showing little or no sign of disease.



*Top left: BTV-3 infected cattle showing redness of eyes, top right: BTV-3 infected cattle showing muzzle crusty erosions, bottom left: BTV-3 infected sheep showing ulcers in the mouth, bottom right: BTV-3 infected sheep showing a swollen head. (Papadopoulou et al., 2024, Courtesy of Royal GD, The Netherlands)*

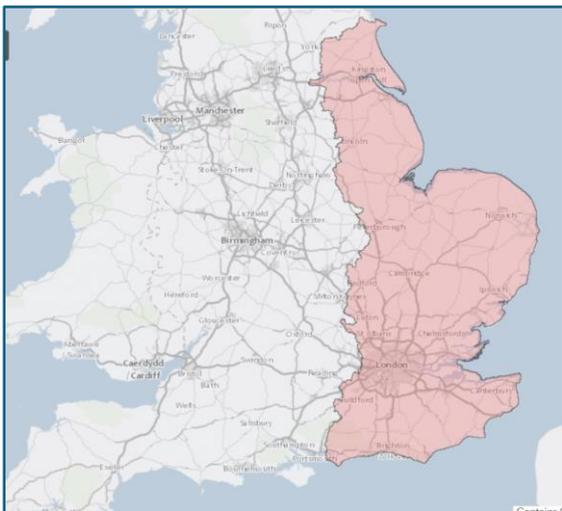
Last year between November 2023 and March 2024 there were **126 bluetongue cases** on 73 premises across Kent, Norfolk, and Suffolk.

Current situation (as of 23<sup>rd</sup> of September):

- First case found 26th August 2024 – South Norfolk.
- As of 23/09/24 there have been **98 cases** of the Bluetongue virus (specifically the BTV-3 serotype).
- There is now a restricted zone in place across **Norfolk, Suffolk, Essex, Kent, East Sussex, Lincolnshire, Cambridgeshire, Bedfordshire, Hertfordshire, all Greater London, Surrey and West Sussex.**

- This means there are **restrictions to movement** of all ruminants and camelids moving out of the zone and the movement of their germinal products within the zone. However, animals within the restricted zone are allowed to move under general license to other premises within the restricted zone. Animals may be moved into a market within the zone but cannot be moved to premises out of the zone afterwards. Moves to markets outside the zones are not currently allowed.

- Animals should **only be moved if absolutely necessary** as any movement carries the risk of disease spread. Holdings that have any land within the restricted zone or straddle the boundary is classified as being within the restricted zone.
- The culling of animals is not currently being used to control the disease in the restricted or infected zones but is likely to be considered on a case-by-case basis depending on how the disease has spread in the local area.



*Bluetongue Control Zones as of 23/09 (APHA Interactive Bluetongue Virus Map 2024)*

#### Vaccines:

The use of unauthorized BTV-3 vaccines, widely used in mainland Europe, **has been permitted** by DEFRA's secretary of state. Currently, these vaccines can only be used under **general licences** focused on **high-risk areas**. These BTV-3 vaccines aim to reduce the viraemia (presence of virus in the blood) rather than provide full immunity. This means vaccinated animals could still become infected and spread the virus, but the vaccines should help **to reduce or prevent** serious symptoms and mortality. Vaccination schedules vary depending on species and vaccine type used with onset of immunity 21-28 days after the primary vaccination course. Common side effects of these vaccines include injection site nodules and a fever.

**Movement controls would still apply** to vaccinated animals.

Animal keepers not in a high-risk county will be able to apply for a specific license, through APHA (Animal and Plant Health Agency). We are hoping to have a better insight into when these will be available to us soon and will be able to provide more comprehensive information for the terms of use.

More information can be found at <https://www.gov.uk/government/publications/general-licence-for-bluetongue-serotype-3-btv-3-vaccine>

If you are suspicious of Bluetongue in any of your animals, please do not hesitate contacting the APHA at 03000 200 301.

**Bluetongue is a notifiable disease.** This means if you do not report it, you are breaking the law.

The situation is changing frequently so be sure to keep up to date with the latest news at <https://www.gov.uk/government/collections/bluetongue-information-and-guidance-for-livestock-keepers>

## Haemonchus

The *Haemonchus contortus* worm, also known as the **Barber's pole worm**, is one of the most pathogenic nematodes affecting ruminants and camelids. It is estimated to affect about 56% of sheep flocks in the UK. Animals become sick due to **blood loss**; adult worms attach to the abomasum (C3 in camelids) of the animal and suck its blood. Each worm can ingest up to 0.05ml per day meaning an animal may lose 250ml of blood daily if infected with 5000 worms. High infection levels **can occur quickly** as each female worm can produce up to 15,000 eggs a day. Eggs are expelled in faeces onto the paddock where they hatch, develop into larvae, and are ingested while grazing, completing the lifecycle. The time from infection to the time *Haemonchus* eggs are seen in a fecal egg count is **15-21 days** in sheep and peracute (very fast) infections can result in death before eggs are present in the faeces. An acute infection usually results in **anaemia, weakness, and death** if left untreated. In longer infections, where blood loss is more chronic, animals lose condition and sometimes get "**bottle-jaw**", where fluid builds up under the animal's jaw.

Diarrhea doesn't generally occur as with other worm burdens.



*Clinical signs of Haemonchus infection including 'bottlejaw', pale/white conjunctiva and weakness (Gareh et al., 2021)*

Unlike with other worms, adults do not develop an immunity to them therefore they are **susceptible at any age** however young and lactating sheep and goats are more at risk. Other factors that increase susceptibility include **humidity, warmth, dense stocking rates, inadequate nutrition** (particularly protein intake), and **overgrazing**. **Spring** is the time of the year with the highest burdens due to favourable weather conditions with larvae emerging from an inactive state and the immunosuppression of late pregnancy. **Late summer-early autumn** also brings high Haemonchus burdens when long dry periods are followed by rain facilitating the movement of larvae from faeces to pasture. Haemonchus is treatable with most **broad-spectrum wormers** and **Closantel-containing** narrow-spectrum wormers. Although drenching all animals may seem like a simple solution, it can lead to dewormer resistance by putting immense selection pressure on the worms. One way of reducing this resistance pressure is not to deworm a few animals that do not seem clinically affected and are otherwise doing well (good FAMACHA score, good or over-conditioned body condition score). To ensure dewormer resistance is not present, it is advisable to do a **worm egg count** at time of deworming and **repeat it in 1-2 weeks** depending on the wormer used. Resistance exists if there is **less than 90% reduction** of eggs.

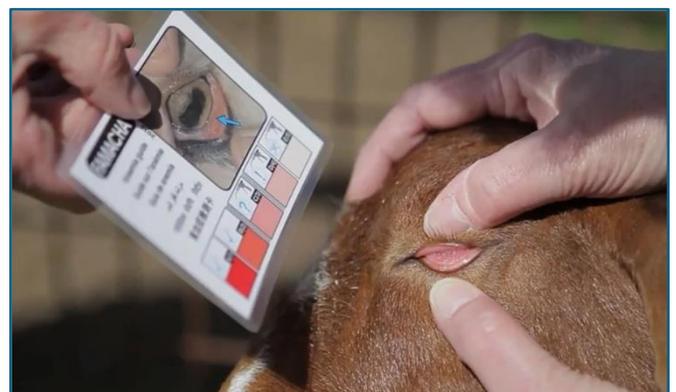
#### How To Prevent Haemonchus

Haemonchus can be found in **purchased livestock** or in **infected pastures**.

To prevent Haemonchus from being introduced onto the farm, it is essential to deworm incoming animals whilst in quarantine with an appropriate dewormer. Haemonchus is particularly vulnerable to **dry climates and cold temperatures** and the L3 larvae die on

pasture during winter months. However, an animal might not shed Haemonchus eggs during winter but can have arrested larvae in their tissues until it is warmer making it even more important to drench quarantine animals even if they have a low fecal worm egg count.

Depending on the type of animals you keep, poo-picking regularly, especially for alpacas, can reduce pasture infection by removing the faeces containing eggs before they hatch. **Grazing management** using cell or rotational grazing contributes to a reduction in the intake of infective larvae by susceptible animals and therefore limits excessive contamination and decreases the risk of infection. Periodic monitoring (with more regular intervals during high-risk seasons) of **body condition score, mucous membrane/eye colour and worm burden using worm egg counts** can help prevent a case of Haemonchosis going unnoticed. Checking the colour of the mucous membranes of the eye helps assess the **degree of anaemia** of the animal. A system has been developed called the **FAMACHA® chart** which helps score the colour of the eye from 1 (normal pink colour) to 5 (white- indicating severe anemia). This should be a routine practice in goats, alpacas, and sheep.



*Scoring an animal using the FAMACHA chart (Online FAMACHA® certification 2021)*

## Ram Fertility Testing

As we move into the autumn period, sheep breeding season will be getting under way once again. Good ram fertility is a vital part of ensuring an efficient lambing season and **maximising the lambing percentage**. This is especially important in single ram systems where infertility could result in a delayed and lengthened lambing period. Full infertility in rams is fairly uncommon but subfertility is seen in **around 20% of rams**.

Ideally, rams require testing **at least 10 weeks before breeding begins** so if any treatable issues are discovered they can be resolved in good time prior to

tupping without impacting on sperm production and also allows new rams to be sourced if untreatable issues are found.

The fertility test involves a **general physical exam** of the ram with close examination of the **toes, teeth and testes**. After this a **sperm sample** will be examined under a microscope to give a detailed evaluation of fertility. Results for this will be given at the end of the examination on farm.



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### Whatsapp

Please do continue to use whatsapp to keep your vet updated on cases and To ask non-urgent questions. For any urgent questions or to book a visit please ring (the old fashioned way i.e. not via whatsapp) the office (07912281994) to ensure your request is dealt with promptly.

### Resources:

APHA Interactive Bluetongue Virus Map (2024) Defra.maps.arcgis.com. Available at: <https://defra.maps.arcgis.com/> (Accessed: 23 September 2024).

Gareh, A. *et al.* (2021) 'Epidemiological, morphological, and morphometric study on Haemonchus spp.. recovered from goats in Egypt', *Frontiers in Veterinary Science*, 8. doi:10.3389/fvets.2021.705619.

Online FAMACHA© certification (2021) Northeast Small Ruminant Parasite Control. Available at: <https://web.uri.edu/sheepngoat/famacha/#> (Accessed: 23 September 2024).

Papadopoulou, C. *et al.* (2024) *The importance of animal and Plant Health Agency (APHA) surveillance in controlling bluetongue*, *APHA Science Blog*. Available at: <https://aphascience.blog.gov.uk/2024/05/17/controlling-bluetongue/> (Accessed: 23 September 2024).