



Fluke, Bluetongue and Metabolic Profiling

NEWSLETTER - December 2023

Hi, I hope you are all coping ok with the amount of water around, hopefully things are looking a bit drier for a while. In this month's newsletter we will discuss Bluetongue, metabolic profiling of ewes and testing for fluke.

BLUETONGUE

You will no doubt have heard about the recent cases of Bluetongue found in Kent. A 10km restriction zone has been put in place which restricts movement of susceptible animals in and out of the area.

Bluetongue is a viral disease which affects sheep, cattle, other ruminant species such as deer and goats, and camelids. The disease is spread by midges, so risk of spread within the UK at this time of year is low, especially following the cold snap last week. Once a midge has been infected it remains infectious for life. Weather conditions such as wind and moisture, distance from neighbouring farms and number of animals in the vicinity has an effect on the likelihood of spread. Disease can also be spread via dirty needles so good hygiene practice when vaccinating animals is essential.

Sheep are more likely to show visible disease than cattle; signs to look out for include:

- Ulcers or sores in the mouth and nose.

- Discharge from eyes/ nose and drooling from the mouth.

- Swelling of the lips, tongue, head, neck and coronary band (where the skin of the leg meets the horn of the hoof).

If you are suspicious of Bluetongue on your farm then you must report it immediately by calling APHA on 03000 200 301 if you are in England, or 03003038 268 if in Wales.

You may remember the last time that we had a Bluetongue outbreak, vaccination was an option for control. Unfortunately, there is currently no vaccine available for serotype 3 which is the type that has been found in Kent.



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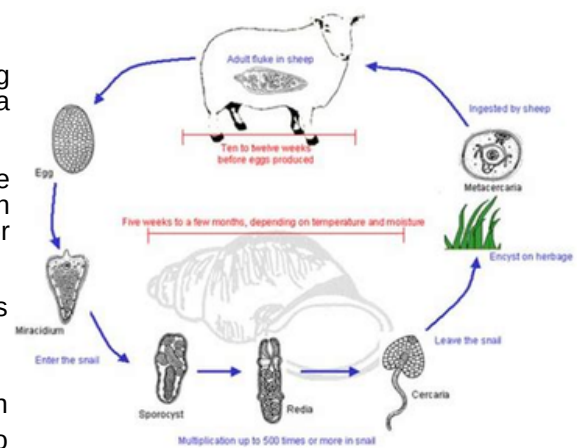
LIVER FLUKE

We have recently invested in an adaption for our in-house worm egg counting machine which allows us to look for fluke eggs so I thought this would be a good time to refresh our knowledge on the subject.

Fluke has a complex life cycle involving the mud snail as an intermediate host, hence the increased risk in wetter years (such as this one!), and on poorly draining pasture. Temperatures above 10°C are needed for development of the parasite on pasture.

Once ingested, the parasite migrates from the gut to the liver, where it takes 10-12 weeks to mature and start to produce eggs.

Disease in sheep can vary from being acute, which may present as sudden death, to chronic, seen as weight loss, bottle jaw and anaemia. There is also a subacute presentation which is somewhere between the two. The best way to diagnose and treat depends on the stage of fluke present.



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T: 01666 823035 Option "1" for visits or enquiries, "2" for medicines or shop, "3" for TB testing

Post Mortem

Examination of the liver of fallen stock is a good opportunity to assess if damage consistent with fluke is present. In acute disease the liver will be swollen and bloody with black tracts present, whereas chronic disease will show fibrosis of the bile ducts.

Blood testing

This can be used as a screening tool for grazing lambs to assess for fluke exposure, but is not a great indicator as to whether animals need to be treated. It can give you a clue as to whether fluke are present on the pasture, and indicate the need for further testing.

Faeces Testing

Fluke Egg Counting

This test will indicate the presence of egg producing adult fluke, so will only work over 10-12 weeks after infection.

Coproantigen ELISA

This test detects a protein secreted by the fluke from around 6 weeks post infection, so is more sensitive but needs to be done on individual samples so can get more expensive than egg counting.

All the tests have their strengths and weaknesses so it is worth discussing with your vet what would be the best to do at what time of year.

Pre-Lambing Metabolic Profiling

Now we are into December, lambing will creep round very quickly so it would be a good time to start thinking about nutrition in ewes. We would recommend using metabolic profiling of ewes, alongside body condition scoring to assess adequacy of nutrition coming up to lambing.

Pre-lambing profiles should be taken 2-3 weeks prior to lambing. If done earlier than this, sheep are not yet in the risk period so issues could be missed, later than this it is getting a bit close to lambing for any changes made to have an impact.

What do we test for?

Energy (BHB's)

If an animal is in negative energy balance, Beta-Hydroxy- butyrate (BHBs) are produced by the liver as they break down body fat to use as an energy source. If this is occurring it leaves the ewe at risk of twin lamb disease, but will also have an impact on the volume and quality of colostrum produced.

Urea (N)

This is a marker of current protein intake. Low protein levels in the diet will lead to poor colostrum quality and reduced volume of milk leading to reduced lamb growth. Low protein also leads to poorer immune function.

Albumin

This is a protein produced by the liver. Low levels can be indicative of liver damage (eg due to fluke), blood loss (eg from haemonchus), long term protein undernutrition or chronic disease.

We would tend to recommend sampling at least 5 sheep from each group (singles, twins, triplets) for those who scan, or 15 at least of varying condition if not scanning. Samples are run in house so we can have the results back to you within 24 hours, allowing any changes that need to be made to be implemented as soon as possible.

Animal Health and Welfare Pathway

Most of you will have probably now heard about the Animal Health and Welfare Pathway, a £436 grant is available to all BPS-registered sheep farmers with more than 21 sheep. This will pay for a vet visit and any diagnostic testing done, so a pre-lambing visit with metabolic profiling would be a great use of this money. We need to do some worm egg counting as part of the review but can explain this in more detail when you register. We will look forward to receiving a flood of registrations once you have read this newsletter!

I HOPE EVERYONE HAS A
LOVELY CHRISTMAS AND A
HAPPY NEW YEAR!



Sarah

