Cattle Parasites

Liver Fluke
Liver fluke is caused by a parasite ‘fasciola hepatica’. Eggs which are passed in faeces, hatch and develop on the ground before being ingested by mud snails. Their development continues inside the snails until they are shed in a motile form that attaches to blades of grass, where they become infective, ready to be ingested by unsuspecting cattle, sheep and other mammals. The development cannot be complete without the presence of the intermediate host; the mud snail. Once inside the final host (cattle and sheep) they penetrate the gut wall and peritoneum and invade the liver capsule and bile ducts. Adult fluke can live in the bile ducts for up to two years and may be as large as 3cm long. Fluke are being seen in areas where they have been previously unknown due to mild temperatures and above average rainfall.

Signs of liver fluke and risk factors include:
- Grazing poor draining pasture (ideal habitat for snails: the intermediate host of the fluke)
- Youngstock are more susceptible
- In cattle fluke is a chronic disease; therefore clinical signs are those of long term weight loss, drop in milk yield, poor fertility and poor doing.
- Acute fluke is rarely seen in cattle but end stage chronic fluke may look like sudden onset. These present with oedema (swelling) under the jaw, anaemia and diarrhoea
- Differential diagnoses may include Johne’s Disease, poor nutrition, Parasitic Gastroenteritis or Salmonellosis

Each farm should have an individual parasite control plan worked out with your vet, however some general points can be applied.

- Avoid grazing poor draining areas like river banks, marshes and poor margins where possible.
- Pasture rotation, since immature fluke cannot survive long on pasture without a host
- Ensuring your anthelmintic treatment targets adult fluke, eggs and larvae in a programme that minimises the development of resistance.
- There are currently some changes implemented regarding the treatment of dairy cows at drying off, as some commonly used products are no longer licenced. If you routinely treat cows for liver fluke at drying off please call the practice for the latest update.

Lungworm in Cattle
Watch out for Lungworm because wet weather has favoured lungworm development; August to October is the peak period in cattle. Only a small number of larvae are needed to cause disease in susceptible animals. It is important to be aware that all ages of animal remain susceptible to the disease, even adults and second grazing season cattle, if they have not been exposed to regular natural challenges whilst grazing each season in order to maintain their immunity. Vaccination of youngstock should be considered on farms with a history of lungworm – this allows for the development of immunity before exposure to risk.

Gutworms in Cattle
A higher than usual incidence of gut worms have been seen this year. A wet summer will also increase the risk of type 1 ostertagiasis in growing cattle with profuse diarrhoea suddenly affecting a large percentage of the group.
Sudden Death in Grazing Cattle

During recent weeks we have seen and received reports of a much higher incidence of sporadic unexpected and sudden death of grazing cattle than would usually be the case. Most of the animals affected have been mature suckler cows but dairy cows during their dry period and youngstock have also been involved.

The most common causes of the sporadic sudden loss of grazing cattle are hypomagnesaemia or staggers and clostridial disease. We have confirmed both of these in cases we have seen. Magnesium, which is vital for the correct functioning of the nervous system, cannot (unlike most minerals) be stored in the body so an adequate intake is required every day. Signs of deficiency include increased restlessness and tremors progressing to recumbency and fitting before death. Treatment at such a late stage is frequently unrewarding because of permanent brain damage that may already have occurred so, as is often the case, prevention is the name of the game.

Perhaps the simplest way of supplementing magnesium intakes is to add magnesium chloride to the cows’ drinking water but this will make the water taste bitter so treatment needs to be added to all the water troughs that the cows have access to (or else they will simply drink from the untreated troughs) and access to untreated water sources, streams or rivers for example, should be prevented (which is, of course, not possible if the water source is lush or wet forage). Alternatives include providing ‘high magnesium’ licks, although intakes by all animals cannot be guaranteed, or by using magnesium boluses. Providing some poorer quality forage to increase gut transit time to allow more of the magnesium present in the gut to be absorbed can also be beneficial (but who will eat dry bread when offered sticky chocolate cake?!).

Clostridial diseases come in many guises including Tetanus and Botulism but with Blackleg and similar diseases being perhaps the most common clostridial causes of sudden death. Frequently in these cases no prior signs are seen before the affected animal is found dead. In the rare case where a diagnosis can be made before death treatment, as with staggers, is frequently unrewarding because, although the bacteria can be killed, the toxins they produce and which cause the disease are already present. Again, therefore, prevention is the key.

An array of vaccines are available which provide good protection against clostridial disease at very reasonable prices. Almost all of these require an initial two dose course of vaccine with an interval of between four and six weeks between doses followed by annual boosters given, ideally, just before the time of greatest perceived challenge. Vaccine choice is often made depending on price, but since cross protection is limited and because even the most expensive clostridial vaccines are cheap (the time taken to handle the cattle and administer the vaccine is a much greater consideration than vaccine price) we would recommend using a multivalent vaccine such as Bravoxin 10 or Covexin 10 to protect against as many of the clostridial diseases as possible.

As a final note of caution, although rare (it has not been confirmed in this area for more than thirty years) the possibility of anthrax should be borne in mind in cases of sudden death. Anthrax, because of its potential to affect people as well as farm livestock, remains notifiable. In cases where it cannot be ruled out with certainty please contact the practice so that we can carry out, at no cost to yourselves, the necessary testing which only takes a few minutes once we have the required samples back at our lab.

Cost Effective BVD Eradication – Tag and Test

For BVD infected herds willing to eradicate the disease, there is now a very cost effective and convenient option available. As you probably know, removing persistently infected (PI) cattle from the herd is the key measure. PIs are generated if an embryo in the first trimester of pregnancy is exposed to BVD. At the time of birth a calf’s fate with regards to BVD is determined – it is either a PI (and always will be, shedding the virus in high numbers 24/7), or it is not a PI (and never will become one).

Testing calves at birth makes lots of sense for the following reasons:
- The result (once confirmed) stands for the entire life of the animal
- It saves the costs of rearing PI’s
- It reduces disease and suppression of immunity in the calf groups
- A clear test clears the dam as well (“two for the price of one”), a positive test, however, may require testing of the dam
- In all year round calving dairy herds the costs can be spread over one year
- In block calving dairy or suckler herds most PI’s can be removed before the service period, potentially improving fertility and preventing the generation of more PI’s.

Special ear tags are now available which during tagging take a skin sample from the ear which is automatically collected in a small bar coded container, linking the ear tag to the sample. As calves have to be tagged anyway, taking the samples for BVD does not require additional handling stress or vet costs.

One of the companies (NMR/Nordic Star) currently has an offer of £5.20 for a set of two Defra approved tags including the test, which is about the cost of a conventional lab test alone. There are other companies which offer the service as well, and it may be worth shopping around, but we think this method is a great opportunity to get on top of BVD, especially in bigger herds, with little extra cost and effort. It may be worth buying your tags for your spring calves now to make use of any offers.

It is, however, important that:
- The dams of positive calves get blood tested – some of them may be PI’s as well
- Positive calves which are looking healthy are isolated (with their dam if necessary) and re-tested after four weeks using a blood test to rule out any transient (temporary) infection.

Please talk to us about a BVD control plan, and whether this option is suitable for your herd.
Calf Respiratory Disease – Viruses, Ventilation, Vaccination and More…

- Have I experienced problems with respiratory disease in my young-stock previously?
- Am I spending money on treating pneumonia that would be better invested in trying to reduce the risk of it happening in the first place?
- Has pneumonia become accepted on my farm – am I ‘putting up with it’ rather than trying to prevent it?
- Are my buildings suitable for rearing young-stock, and if not, what could I do to improve them?
- Do I trust the source of my bought-in calves, and am I doing everything I can to ensure that these animals are given the best protection from respiratory disease after they arrive?

It was good to see so many of you at our meeting in November – for those of you who attended, please don’t hesitate to discuss any questions that you may have as a result of the meeting with either your routine vet or with Katy (07855 420570). If you weren’t able to make the meeting, please talk to us about what you missed!

Calf respiratory disease costs the UK cattle industry £80million annually, with an average cost of £43 per sick dairy calf and £74 per sick beef calf. This is without taking into account the significant cost of reduced live-weight gain in other animals within the group.

The implications, whether as a result of a respiratory disease outbreak or due to ongoing individual cases, can be significant and an approach which seeks to:

- reduce the incidence of outbreaks
- identify and treat sick individuals rapidly
- prevent the spread of disease to other in-contact animals

will reap huge benefits in terms of improved animal welfare and better financial gains.

Cattle pneumonia can be caused by a vast number of different viruses and bacteria, almost always ‘triggered’ by other factors such as inappropriate ventilation, stress and poor colostral intake.

A ‘one-fits-all’ approach will not necessarily produce the results on one farm that we would see on another – only by considering the individual components of a specific respiratory disease syndrome can we determine the most likely causes and target them accordingly. As we head into the late autumn and winter months, this is a good time to review the measures you have in place for preventing and dealing with the impact of respiratory disease in your youngstock.

The Healthy Livestock scheme offers you contributory funding towards such an investigation, and if this is something that would be of interest to you, please feel free to contact us for further information.

Some of the farm vets at Endell grew moustaches last month in aid of Movember, a charity raising funds and awareness of men’s prostate and testicular cancer. To find out more about Movember or donate, visit http://uk.movember.com/team/661157

THANKYOU

Staff News

We are delighted to hear that Louise is expecting a baby next summer. Our joy quickly mixed with the thought of “how can we do without her?” during her maternity break, but fortunately Louise is planning to work well into next spring, just avoiding pregnant and lambing sheep. We all wish her well during the course of pregnancy and are looking forward to the big day and to find out if she practices what she preaches about neonatal care.
DairyCo Mastitis Control Plan

The DairyCo Mastitis Control Plan (DMCP) is part of a national mastitis initiative developed by vets specialising in mastitis and DairyCo which aims to collate the literature concerning mastitis and apply it in a standard, practical manner to UK farms.

The plan was trialed on 52 randomly selected, commercial UK herds (26 herds were randomly assigned to intervention plans, 26 to 'control') the results of which are summarised in Figure 1.

After one year the clinical mastitis incidence had increased by 19% in ‘control’ herds and had decreased by 4% in the intervention herds. Results from statistical modelling (to include potential confounding factors) showed a significant, 22% reduction in the proportion of cows affected with clinical mastitis on the intervention (Plan) farms compared with the control farms. Significant reductions were also shown in the incidence of clinical mastitis and new infections as measured by change in somatic cell counts.

As a result the DMCP provides a comprehensive mastitis investigation program and is the only control method recognised by milk buyers. Endell’s have trained Jim and Peter in implementing the DMCP – should you be interested in getting to the bottom of your mastitis or SCC problems then please feel free to contact them at the practice. For a limited time only there is part funding available via the South-West Healthy Livestock Initiative.