



nantwich
farm vets LLP

NEWSLETTER

NOVEMBER

2020

This Month:

Calf Pneumonia and Vaccination

Liver Fluke

Transition Cow and Calf Monitoring



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AN AUTUMNAL FEELING



I feel these newsletter introductions always start with a comment on the weather, but as we move into calf pneumonia season it seems an appropriate place to start this one. The variation between warm days and cold nights often results in coughing calves and we are certainly seeing that this year. Calf pneumonia can be a hugely costly disease, which can have a lasting impact on the performance of that animal. Sarah talks more about calf pneumonia and vaccination but if you would like more advice speak to one of our team.

Another topical issue is Liver Fluke, this can be a complicated parasite, particularly on dairy farms where product choice is limited. Laura shares her advice on this topic looking at the latest information.

The situation with COVID 19 is ever changing, as I write this on 14th October, all of Cheshire has come under extra restrictions. At Nantwich Farm Vets we are working hard to minimise any disruption but we are trying to protect our clients and

staff. We thank everyone for their cooperation with the collection of medicines at the practice, it looks like ringing ahead to have your medicines brought out to you will be here to stay for some time. At the moment, we are open our normal office hours, 8am – 6pm Monday to Friday and 8.30 – 1pm Saturday. We will try to keep everyone informed of any changes.

It seems that on farm inspections are back in full swing even if they are taking place virtually. If you have not had your herd health plan updated in the last 12 months, please get in touch. The Red Tractor dairy requirements were updated in October 2019, so it is important to make sure yours includes these updated requirements. One of the new requirements for dairy farms is that one person on farm must have attended a medicines course since October 2017. Amy has been doing a great job at running these sessions, especially now they have to be done online. Please get in touch with us to book your place.

Dave



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CALF PNEUMONIA AND VACCINATION

As the weather has already taken a turn for the worse, now is the time to consider a more proactive approach to calf pneumonia through vaccination. Calf pneumonia is the most common reason for poor performance and death in growing calves and can impact a calf for its entire life, leading to reduced growth rates, later finishing times and lower milk yields. It's a costly disease! The causes are multifactorial: infectious agents (bacterial and viral), calf immunity, housing, ventilation and stocking densities all play a key role.

To ensure the most successful outcome when faced with an outbreak, it is important to identify the causative agents through diagnostic tests; nasal swabs, serology, and bronchiolar alveolar lavage (BAL) are commonly used. Thoracic ultrasound scoring of groups of calves can identify subclinical disease. Diagnostic tests are recommended to ensure that the most appropriate vaccine and treatment is used to provide good results.

There are several vaccines on the market that provide effective control of the most common bacterial, viral, and parasitic causes of calf pneumonia. Vaccine programs are designed on an individual farm basis, using knowledge of risk factors and pathogens present. The aim of vaccinating is to reduce pathogen pressure in the calf environment, reduce disease and so improve performance, welfare, and farm profit.

Vaccination alone will not cure pneumonia. It is essential that basic management issues



contributing to the main risk factors are addressed to ensure that pneumonia control strategies have the best outcome. Colostrum management, nutrition, and housing environment should all be assessed.

To maximise success make sure vaccines are stored and handled correctly:

- Check the farm fridge works before storing vaccine in it
- Make sure the correct dose and route of administration is followed, and complete the course required
- Always check the shelf life of the vaccine once opened – most need to be used immediately
- Vaccinate healthy calves only and prior to stress (ie moving, disbudding, mixing groups)

The success of pneumonia control strategies can be measured through on farm records of calf disease, losses and drug usage. Regular calf health scoring (part of our new Vet Tech service) can also monitor changes in clinical signs of disease. Thoracic ultrasound scoring can also be used as an ongoing monitoring tool.

Pneumonia is a costly disease. What could it be costing you? If you want to investigate further, speak to your vet or, for a particularly calf-focused mind, get in touch with Sarah Williamson.

LIVER FLUKE IN CATTLE



The details on this seasonal parasite are discussed by Laura Donovan.

It is now the best time of year to test cattle for exposure to fluke. Fluke (*Fasciola hepatica*) is a flat, leaf shaped parasite found in the liver and bile duct of cattle (see *Figure 1*). Fluke diagnoses are relatively common in this area.

When TB testing an autumn calving herd several years ago, I noticed the fresh calved heifers stood out from the cows quite dramatically. They had poor coats, low body condition and milk yields were struggling. We tested a pooled faecal sample from 10 heifers and fluke eggs were detected. After treatment for fluke the heifers were much improved with glossier coats and began to put on condition. Often the clinical signs are more subtle than this but a fluke burden may be affecting body condition scores and growth rates, so it is important to identify the problem early.

The damage that the fluke causes as it travels through the liver can also let other bacteria thrive and predispose them to more severe disease. I have seen a few cases of severe watery

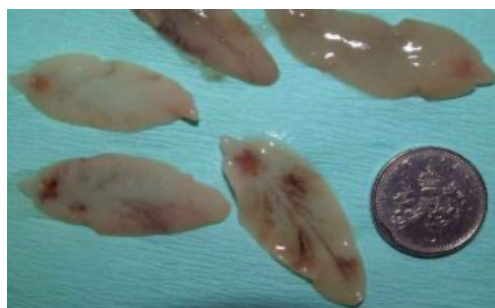


Figure 1: Liver fluke

and bloody scour in very sick animals, when *Salmonella Dublin* has infected secondary to fluke. Clostridial species can also invade livers damaged by fluke and these cases would usually present as sudden death.

THE LIFE-CYCLE

The liver fluke life cycle (*Figure 2*) takes several weeks. It is very dependent on warm, moist conditions to allow the eggs to hatch. The miracidia usually hatch from eggs in the spring and mature into cercaria in the mud snail. Clinical disease is seen in late summer and autumn, however, spring infection may also occur, when cercariae emerge from overwintering snails. As winters are often milder than in the past, the life-cycle can be harder to predict.

LIVER FLUKE LIFE CYCLE

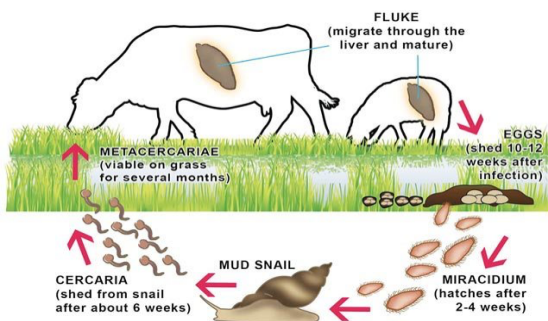


Figure 2: Liver fluke life cycle

TESTING

There are several tests available to look for fluke in cattle:

Faeces

1. Egg flotation test

Youngstock can be tested with a pooled faecal sample which looks for fluke eggs. It has only 40-60% sensitivity as fluke egg production can be intermittent so unfortunately fluke can be missed with this test. Also, no eggs will be detected until 8 weeks after the immature stages of fluke have been ingested (the pre-patent phase).

2. Faeces antigen ELISA test

This is a clever test which actually detects the fluke digestive enzymes in the faeces of infested cattle. This test can detect fluke 2-3 weeks before fluke eggs can be found in faeces.

Blood tests

We can run a blood test on 5-10 cattle for Liver fluke ELISA which is an antibody test. This detects liver fluke as early as 2 weeks post infection and peaks at 6 weeks post infection. However, levels can remain high for several months after infection, so it is

difficult to know if infection is active. This test is probably most useful in first season grazers to see if they have been exposed to fluke and need treatment.

Bulk Milk Fluke Antibody Test

Adult milking cattle can be tested using a simple Bulk Milk Fluke antibody test. Some milk contracts already request that this is carried out annually in autumn. It gives a general idea of the level of exposure to fluke in the herd.

Post mortem

When cull cows are sent in, ask for feedback from the abattoir on any liver rejections.

TREATMENT

There are around 30 flukicides on the market. Table 1 (overleaf) includes a few of the different options to consider along with your vet.

There are lots of things to think about when selecting a product: Do the animals need a combination product that includes a wormer? Are the animals producing milk for human consumption? How much is it going to cost? Would an injection be easier than a drench?

One of the key things to look at is the fluke stage killed. A single dose of Endofluke 10% or Combinex Cattle two weeks after housing would kill all fluke stages but with other products if cattle are dosed at housing they would need a second dose around 8 weeks later to ensure all the stages were killed.

Trade Name	Drug	Fluke stage killed	other parasites	Route of admin	Withdrawal	
					Meat	Milk
Combinex Cattle	Levamisole Triclabendazole	2 weeks +	Round and lung-worm	oral	56d	NO*
Endofluke 10%	Triclabendazole	2 weeks +	No	oral	56d	47d
Closamectin	Ivermectin Closantel	7 weeks +	Round and lung-worm, mites, lice	pour on	28d	NO*
Albenil 2.5%	Albendazole	10 weeks +	Round, lung and tapeworm	oral	14d	60h
Ivomec Super	Ivermectin Clorsulon	10 weeks +	Round and lung-worm, mites, lice	s/c injection	66d	60d
Zanil	Oxyclozanide	10 weeks +	None	oral	13d	108h

Table 1: Flukicide products

* Not to be used in milk-producing animals

PREVENTION (BETTER THAN CURE!)

1. Identify the high-risk areas for fluke on your farm and consider if grazing these pastures in the late summer/autumn can be avoided.
2. Fence off wet areas (the main mud snail habitat).
3. Attend to leaking troughs and pipes.
4. Consider housing early.

INTERESTING FLUKE FACTS

- The hatched miracidium have to find the snail intermediate host within 30 hours.
- Recent evidence suggests that the TB test may be compromised when used in fluke-infected cattle.
- Liver fluke can survive in silage unless it is well fermented.
- In some years the conditions only

allow the complete fluke life cycle to occur once.

- In severe cases of fluke, a swelling can be seen under the jaw (submandibular oedema/ 'bottle jaw').

RUMEN FLUKE

Rumen fluke (*Calicophoron daubneyi*) has a similar life cycle to liver fluke and shares the same intermediate host. The immature stages of the rumen fluke cause damage to the wall of the small intestine and the adults can be found living in the rumen. There are occasional reports of severe watery scour, dehydration and death in youngstock from the development of large numbers of immature stages in the small intestine. In adult cattle there is still limited evidence that rumen fluke is of pathological significance. There is no licensed treatment for rumen fluke, but it is widely recognised that Oxyclozanide (Zanil) will kill the adult and immature stage of rumen fluke.



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SERVICES

CALF AND TRANSITION COW MONITORING

We are excited to be launching a new Calf and Transition Cow Monitoring scheme this autumn. It involves regular Vet Tech visits to blood sample cows 10-20 days in milk to measure ketone levels, and calves 1-7 days old to measure total protein levels. Cow body condition scoring and calf health scoring will also be carried out as further assessment tools.



Detecting ketosis in fresh cows at a sub-clinical level (without any obvious physical signs) enables us to identify individual animals at high risk of disease (e.g. LDAs) which commonly occur as a consequence of ketosis. In addition, ketone testing provides a measure for transition success on a herd level.

Measuring the blood total protein level of calves provides an indicator for colostral antibody transfer at an individual level (identifying calves at higher risk of disease like scour and pneumonia) and success of colostrum management at the herd level.

All of this information will in turn be fed back to you and your vet in a monitoring report, allowing you to identify challenges, target interventions appropriately and monitor improvements over time.

To launch the scheme we are offering the first visit (Vet Tech visit charge only) for free to the first 25 farms who sign up. To do so, or for further information, contact our office team.

COURSES

ONLINE MEDICINES COURSE Wednesday 11th November

These courses include covering correct administration of medicines and avoiding residues and fulfill all the requirements for Red Tractor Farm Assurance.

LAMBING COURSE Wednesday 10th February 2021

This will involve an online session on the above date, with a small-group practical session at the Farm Practice the following week. More details to follow.



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