FARM ANIMAL NEWSLETTER - NOVEMBER 2020

ROUTINE FERTILITY VET VISITS

All dairy farmers will be aware of the economic benefits of keeping the herd's calving index well below 400 days and minimising the number of cows needing to be culled for fertility reasons. Having regular, structured routine fertility visits helps achieve these targets as well as reducing the carbon footprint per litre of milk produced.

At a typical visit cows will be presented to us for the following investigations:-

Post calving checks

Checking high risk cows for evidence of whites approximately 3 weeks after calving e.g. cows which have had twins, milk fever, assisted calvings, retained cleansings etc. so that infections can be cleaned up before they are ready to serve.

Not seen bulling cows

Cows which have not been seen on heat by the start of the service period e.g. 40-50 days after calving, a decision can then be made as to whether the cow is:

- Cycling normally and can be left to come on heat by herself
- Quiet and can be injected with prostaglandin (estrumate) to bring her into season
- Needs treating for being anoestrous or cystic e.g. with a PRID, CIDR or Receptal

Cows Not Holding

Cows which have been served repeatedly but not holding can be examined at the routine visit to determine if there is an underlying problem which warrants further investigation e.g. damage to the reproductive tract, lameness, other disease such as Johnes etc.

Pregnancy Diagnosis

All cows over 30 days served which have not previously been confirmed in calf can be scanned and any found not to be in calf can be treated to come back into service.

Depending on the size of the herd most routine visits would be arranged fortnightly or monthly with the added advantage of a reduced hourly rate for pre-arranged fertility work and analysis of herd fertility performance.

If you are not currently having routine fertility visits and would like to start or for more information, please speak to one of the farm vets.

NEOSPORA ABORTION IN CATTLE

In recent years *Neospora Caninum* abortion has emerged as the most frequently diagnosed cause of abortion in cattle. Abortion typically occurs between 5-8 months of pregnancy and if got back in calf a cow may abort more than once with Neospora.

What is the cause?

Neospora Caninum is a protozoal parasite from the same family as Toxoplasma in sheep and coccidiosis.

How common it is?

Very few farms in the UK have no Neospora infection within the herd. Surveys have indicated that up to 5% (1 in 20) of cows could be infected with Neospora.

How do cattle become infected?

There are 2 routes by which cattle can become infected, horizontal and vertical spread.

Horizontal Spread

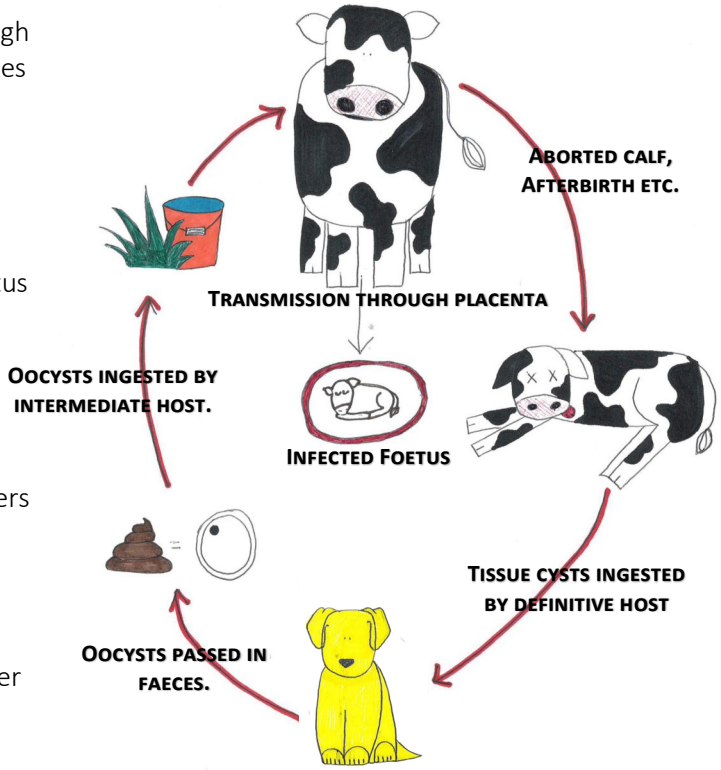
A cow that aborts due to Neospora is not able to spread infection directly to other cows but aborted calves, afterbirths etc. are capable of infecting dogs. If infected material is scavenged, a dog can become infected and it's faeces is then capable of contaminating pasture or cattle feed which can then infect other cattle.

This is like Toxoplasma abortion in sheep whereby infection doesn't spread directly from sheep to sheep but must pass through an intermediate host, cats in the case of Toxoplasma, dogs or foxes in the case of Neospora.

Vertical Spread

Unlike Toxoplasma in sheep where a sheep will only abort once with the disease and then have a solid immunity, when a cow is infected with Neospora it remains infected for life and every foetus that she carries is likely to become infected, some infected foetuses will be aborted or the calf may be born full term but already carrying the infection at birth and capable of aborting herself if put in calf. Repeated abortions in the same animal are possible as are the production of families of cows (mothers, daughters and granddaughters) which are 'bad' breeders and prone to not carrying calves to term.

Life Cycle Of Neospora



How is the disease diagnosed?

Blood sampling cows that have aborted or screening of cows at drying off or blood sampling new-born calves will indicate whether animals are infected. Examination of brain material from an aborted calf will confirm whether abortion is definitely due to Neospora.

Control measures for Neospora

There is no vaccine or treatment for Neospora, however once an animal has been identified as positive for Neospora, certain control methods can be employed to limit further impact of the disease.

- Cleansings and abortion materials should not be left around for dogs to scavenge and farm dogs should be kept away from calving pens.
- It is recommended that all cows which abort are screened for Neospora infection.
- Selective breeding can be employed with known Neospora cattle being served with beef semen to avoid breeding infected dairy heifer replacements.

Dalehead Case Book – Chronic Copper Poisoning

Urine sample

Black kidney (left) and Liver

Jaundiced eye membranes

During the month of October, we have seen 3 cases of chronic copper poisoning in tups that have been bought at sales. Typically the initial signs noticed were "blood" in the urine and abdominal discomfort. When examined, they showed signs of jaundice in the gums, eye membranes, and even abdominal skin in one case. The urine was black or dark brown , rather than fresh red blood. They were either showing or developed behavioural signs of aimless wandering or head pressing against a wall.

In all three cases, they were too advanced to respond to treatment. On post-mortem examination the kidneys were black and the liver was golden yellow – both are typical signs of chronic copper poisoning.

Chronic copper poisoning is not uncommon in the late summer in Blue-faced Leicester and Texel tup lambs and shearlings that are being fed substantial amounts of concentrates – pre sale for example. Breed and age have a significant effect – young animals absorb dietary copper very efficiently. Copper is stored in the liver, and levels there can build up over a period of weeks or months until they exceed the liver's capacity to store it. This results in the sudden release of copper into the system which causes the breakdown of red blood cells (dark urine, anaemia and jaundice) and irreversibly damages the kidneys and brain (abdominal pain and head pressing). This release can be brought on by stress – handling, dosing, weather, movement etc. By the time clinical signs are seen, the damage is already done, and response to treatment is very poor.

Farm Assurance Flock and Herd Health Plan Reviews

As part of your Red Tractor or Dairy Farm Assurance inspection you now need to have filled out a 'Health and Performance Review' detailing levels of losses and disease incidence as well as production figures e.g. number of barren ewes and lambs born on sheep enterprises or conception rates, calving index and cell counts for dairy herds which has to be reviewed by your vet as well as an up to date health plan which has been countersigned by your vet.

A review of antibiotic usage is also required which we can provide. During the Annual Health Review we will also discuss current industry initiatives in disease control e.g. **BVD Free England**, **Action Johnes** and the **5 Point Lameness Control** plan for sheep. A further requirement for dairy farms, and soon to be sheep and beef farms, is that at least one member of the farm staff has received training in the storage handling and administration of medicines by attending a 'Responsible Use of Medicines' course.

We have run several of these courses last year but have been unable to organise meetings this year due to Coronavirus restrictions. We have however, assembled an online course (details of which are included at the end of this article) to allow you to complete your medicines course before your Red Tractor inspection.

We need to have the health and performance review and health plan templates filled out before we can complete our sections. In order to satisfy the requirements of having been on the farm in the previous 12 months, have a working knowledge of the farm and have access to all relevant paperwork our reviews now need to be carried out on farm rather than at the surgery but there will be no visit fee charge for the farm assurance paperwork review.

Responsible Use Of Medicines Course

Due to Coronavirus restrictions on holding client meetings at our usual venues and the need for farmers to have completed a 'Responsible Use of Medicines' course for farm assurance we have modified our presentation so that the initial part of the course can be viewed on-line which is followed up with a face to face meeting either at the surgery or on farm. The cost of the course is £30+VAT. Please contact the surgery to register for the course and we will provide you with the workbook/manual and email the meeting presentation to you. Once viewed we will then go through the final part of the course with you to complete the qualification.

Anyone who has already registered an interest will be contacted shortly.

LAB UPDATE

FLUKE UPDATE – IT'S ALL STILL NEGATIVE!

You will all know that we blood sample lambs on several farms for fluke antibodies. Measuring antibodies tells us if an animal has been exposed to fluke, the results go positive 2 weeks after exposure, stay high for at least 9 months and the maternally derived antibodies are minimal after 3 months. Sampling adult animals through blood or milk testing is not useful, we know ewes and cows have been exposed to fluke in the last 9 months on the land type we have on our farms. Lambs are ideal candidates for this sampling in our grazing system.

If we identify to a few weeks when fluke have become active we can accurately time our flukicide dose to ensure that we are controlling fluke most effectively. There is no point dosing when the fluke are either not at a high enough level to kill a significant amount or if the fluke are too immature for the drug to be effective.

The farms on which we are testing are in different environments and altitudes so we should have a farm that we can all identify with. The results are essentially negative. The two wet farms are both all negative, we have very, very low levels on the 2 other farms. So effectively there is no real level of fluke.

Our advice is there is no need to fluke yet. To be safe do an egg count to ensure you don't have fluke left from last year.

We will be sampling in the next weeks and will keep you informed.

Putting a dairy spin on a sheep project. This lamb survey is the most useful indicator of fluke burden across the practice as the persistence of the fluke antibodies in blood and milk makes bleeding adult animals or bulk tank testing too unresponsive to tell what is happening. The antibodies in milk will still be high nine months after a challenge and so you would need two low challenge grazing seasons to drop the level in the bulk tank significantly (treating last year's problems?).

Mastitis

This month in the lab has been reasonably busy with cell count and mastitis samples. This has been driven by the damp, mild conditions increasing the chances of environmental mastitis. We have also seen an increase in the number of samples growing contagious mastitis pathogens associated with lower mastitis rates but higher bulk cell counts. With the loss of the majority of the milking cow tubes available for treatment it is even more important to know what you are dealing with and treat appropriately.

Where E Coli is found to be the predominant cause of mastitis a broad spectrum tube such as *Ubrolexin* may be the most appropriate whereas in the majority of situations *Ubropen* could be the first line of treatment of choice.

For the contagious mastitis pathogens a more aggressive treatment with injectables may provide a better cure rate as the strain type on your farm can vary in responsiveness from 30% to 90% cure rate between different antibiotics. The use of injectables allows non penicillin based drugs to be used.

If you are having an increase in cell counts and or a perceived drop in the cure rate in mastitis contact us about sampling and growing the bugs as there may be another way of treating or preventing mastitis.

ANTIBIOTIC FOOTBATHS

We are all aware of the need to use antibiotics responsibly and reduce the overall amount of antibiotic that we use targeting individual animals which need treating rather than blanket preventive therapies of whole groups. In recent years milk buyers have discouraged antibiotic dry cow treatments for all cows and encouraged targeted treatment of individual high risk or already infected cows. Sheep farmers have been encouraged not to use preventive antibiotic rattlebelly treatments for all lambs at birth but to target treatments towards high risk and vulnerable lambs.

Another example of where blanket antibiotic treatments should be discouraged is when foot bathing cows and sheep for digital dermatitis, CODD, scald and footrot control. Consideration should be given to avoiding the use of antibiotic *(e.g. Lincospectin, Pharmasin, Tylan)* footbaths for the use of disease prevention, looking instead at the use of other chemicals e.g. Zinc sulphate, copper sulphate, Formalin, the frequency and efficiency of foot bathing protocols and in sheep flocks the protection provided by footrot *(Footvax)* vaccination and adoption of the 5 Point Plan.

For further advice on lameness control please speak to one of the farm vets.