



September/October NEWSLETTER!

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Welcome to our September-October newsletter!

As summer fades to autumn, planning for next year is top of the agenda and we would love to help make sure it is another productive year for you. Making sure your animals are healthy is vital to your productivity.

In this issue, we've covered pregnancy diagnosis for cows – how it can affect your bottom line and the added benefits of a good programme.

Johne's disease has no cure and can be hard to diagnose. Routine testing and prevention is the most cost effective way to make sure your cattle don't succumb. We take a look at what Johne's disease is, how to identify it and how to control it.

Please let us know what you think about the topics we have covered in this issue or if there is something you would like us to cover in upcoming newsletters.

Drop us a line at forthvalleyvets@outlook.com.

Best wishes,

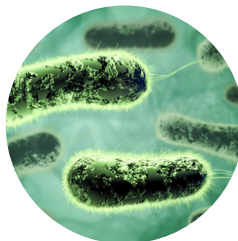
The team at Forth Valley Vets.

In this issue:



Pregnancy Diagnosis

Why is a good pregnancy diagnosis programme vital to the future of the herd and your bottom line?



Johne's Disease

There is no treatment for Johne's disease so what is it? How do you identify it and control it?

Pregnancy Diagnosis in Cattle



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Knowing which of your cows are in calf and when they are due to calve is a vital piece of information for farmers.

You really need to know if a cow has held to a particular service, to plan for her future in the herd, whether that be a time to dry off/move to the calving pen, or to decide when to remove from the herd. It is also important not to cull heavily pregnant cows by mistake, as this will represent a simple loss of a calf and possibly another lactation, and often leads to involvement of trading standards due to the welfare implications of transporting and culling heavily pregnant cows. There is also plenty of evidence to show that each day a dairy cow is not in calf after 400 days of lactation, it costs between £2 and £4 in lost production. This can be effectively managed by having a well-thought out pregnancy diagnosis programme for each and every farm. Although it involves cost from the vet, it will yield significant savings and increased return from the stock already on farm.



The cow is examined rectally, either by hand or using an ultrasound scanner.

So, what we would advise is presenting cows for examination from 5-12 weeks after service, with 6-8 weeks best for accuracy and taking action if shown not to be in calf. The cow is examined rectally, either by hand or using an ultrasound scanner, which is now the main method. Ultrasound scanning of the uterus can easily detect pregnancy from 35 days post-service, and is very accurate up to 70 days. After this time, it is often easier to use manual detection due to some of the constraints of scanners. When setting up a programme for PDs on farm, we would like to see fresh calved cows at about 3 weeks post calving, cows not seen bulling by a chosen date such as 50 days, and cows served for more than 30 days with no return to service. It helps if there is information available for each cow to tell the vet whether the cow has been calved, when it was last served and any issues since calving such as retained foetal membranes from calving.



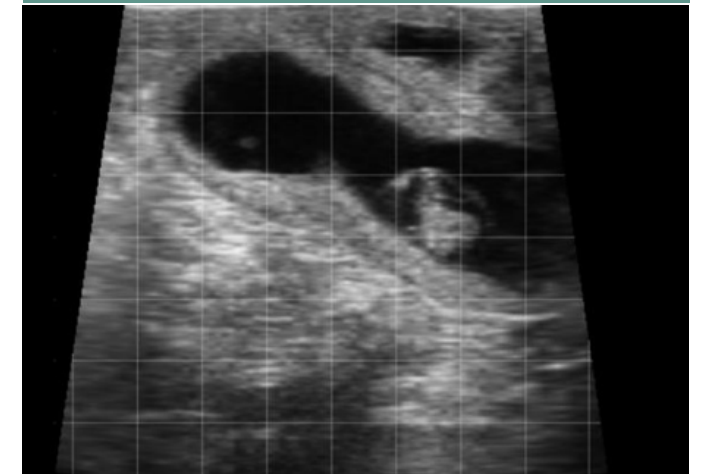
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Selecting such animals is hugely affected by the farm size and organisation, with larger farms getting a fertility visit every week, farms that batch calve may just get one or two longer visits per year, it is something that needs to be assessed by each farm and their vet as to what is most suitable.

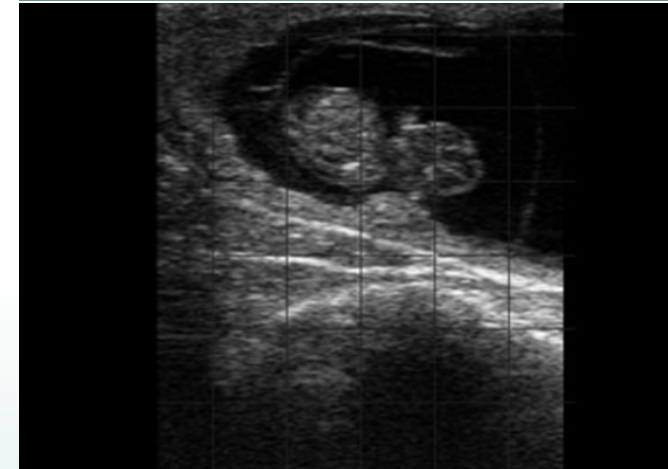
When scanning cows for pregnancy, you can get very useful additional information from non-pregnant cows, such as identifying cows with womb infections or "whites", whether their ovaries are normal, cycling or even cystic, which allows appropriate treatment actions to be selected. There are plenty of effective options to choose for cows that have been found not to be in calf, but they do vary according to the type of farm involved. Cows on a high output dairy farm respond differently to a lower output one, or beef cattle.

Following are some images of what we see when scanning the cow's uterus, which is hard for farmers to see when only a set of goggles is being used.

Here is a cow with a 35 day pregnancy



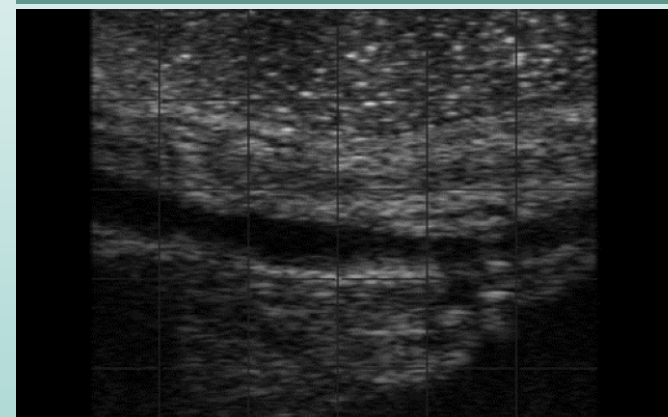
Here is a cow with a 45 day pregnancy



Here is a cow with a 60 day pregnancy



Next is an image of a cow with endometritis or 'whites' where you can see the mucky stuff as bright speckled material.



Finally, here is an image of twins.



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Diagnosis and Control of Johne's Disease

Johne's disease is a chronic inflammation of the intestine, often accompanied by diarrhoea, in ruminants. It is caused by the bacteria *M. Paratuberculosis*. The bacteria embeds itself in the intestinal wall, causing thickening. This prevents the absorption of nutrients, resulting in slow and profound weight loss.

The bacteria is able to multiply in the cells of the gut wall and is shed in the faeces, milk and, possibly, saliva of the animal.

How is it spread and what are the signs?

Once in the environment the bacteria can survive for over a year in soil, manure and water.

The main route of infection is via contact with infected manure and saliva. We know that calves less than 6 months old are the most at risk, although infection can occur in much older animals.

Clinical signs of the disease include slow, progressive weight loss, diarrhoea and eventually bottle jaw may occur due to fluid accumulating in the tissue of the lower jaw.

Prevention of infection in a herd is the most cost effective measure to control Johne's. Routine testing of herds and the culling of infected animals, as soon as practicably possible, is the best method of stopping this disease. This may involve managing an infected animal so it stays out of contact with other animals and snatching calves at birth so they have no contact with the dam's colostrum or faeces.

There is a vaccine available, but its use is controversial and under strict control because it can interfere with eradication programmes and affect TB test results.

Diagnosis

Diagnosing Johne's disease can be tricky as cattle that are sub clinically infected can be happily spreading the disease in its faeces but look 'normal' to the naked eye. Identifying these animals is crucial for disease control.

PCR tests detect shedding animals, but can produce false positives if an animal is transiently infected after ingestion but does not go on to develop the disease.

ELISA tests are used to measure the immune response i.e. has the animal been in contact with the bacteria. Animals can respond differently to the infection and the point at which they become clinical and shed the disease varies greatly.

Faecal culture is costly and time consuming, but can detect infected animals months before they show clinical signs of the disease. Unfortunately, many animals are non-clinical carriers of the disease.



Identifying infected animals is crucial for disease control.

Treatment

There is no treatment for the disease. Control involves identifying infected animals and culling them when possible. Hygiene is important in the management of this disease to prevent the spread of the bacteria to other animals, particularly newborn and young calves.

Practical control measures involve:

- Culling diseased animals as soon as possible
- Minimise faecal contamination of water, food and pasture by using piped water, raised troughs and feed areas, not spreading manure on pasture, cleaning calving boxes etc.
- Separate newborn calves from infected dams at birth and rear on artificial milk
- Do not feed waste milk to calves
- Don't keep calves from infected dams as breeding replacements
- Source stock from accredited herds only
- Rabbits and deer may be involved in the spread of the disease

If you are concerned about Johne's Disease within your herd or would like more information on how to keep your herd Johne's free, give us a call.