Wright & Morten Farm Newsletter

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November 2023

Providing lifetime care for your herd – Wednesday 15th November

MSD are running a roadshow to discuss all aspects of monitoring, treating and protecting your herd as well as some trade elements as well. The event is aimed at dairy farmers and vets so you will definitely see a few of us there too! Come along on Wednesday 15th November to this free event and be in with a chance to win an EID stick reader.

Beef bourguignon, apple crumble and Bidlea ice cream provided so it is not one to miss!

Please register using the QR code or by calling the office on 01477 571000 to ensure attendance is expected.

Register online here

Location – Bidlea Dairy, The Orchards Farm, Twemlow Lane, Holmes Chapel, CW4 8DS

Highly Pathogenic Avian Influenza

So far this season there have been fewer cases of HPAI in the UK than this time last year but this definitely does not mean we can get complacent. We have already had confirmed cases within Cheshire so we thought it would be a good time to remind all bird keepers of biosecurity protocols and clinical signs to ensure we can prevent as much spread of the disease as possible. Clinical signs include (but are not limited to): sudden death, swollen head, runny eyes, lethargy and decreased appetites. It is important to remember not all species will show the same symptoms and ducks, geese and swans in particular are less likely to show symptoms.

Improving cleanliness and minimising contact between wild birds and your own flock are very important. Keeping feed and water away from open access can help to reduce the temptation of wild birds to enter your flock.

If you haven't done so already registering your flock with APHA to receive bird flu updates is extremely important and can be done at the following link: *https://www.gov.uk/government/publications/poultry-including-game-birds-registration-rules-and-forms*

Reporting suspected bird flu in captive or wild birds can be done by phoning 03000 200 301.

All of our vets are currently training to assist APHA during the current bird flu season so please do phone us on 01477 571000 if you have any queries about your flock.

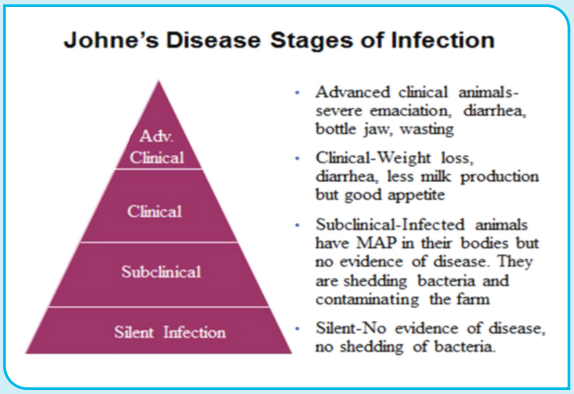
Caution - Blue Tongue Virus

A new strain of bluetongue (BTV-3) is currently circulating in the Netherlands and Belgium although hasn't yet been confirmed in the UK. Bluetongue is spread by midges so whilst unlikely to spread directly from Europe to our region it could come in via the South of England or via transport. It can affect all ruminants and camelids and clinical signs can include drooling, mouth lesions, fever, lameness, head swelling and sudden death.

Please remain vigilant and report any suspect signs to your vet as it is a notifiable disease.

Johne's Disease

Johne's disease is caused by a bacteria called Mycobacterium avium subspecies paratuberculosis (MAP). Young calves can get infected via many routes, including through faeces from shedding cattle, colostrum or milk from infected animals, from the environment and in some cases, wildlife can spread the disease (deer and rabbits). Despite it being young animals that are more easily infected, older animals are not immune to new infection. Clinical signs appear later in life and include diarrhoea, chronic wasting, decreased production and oedema. There is no treatment meaning management is achieved by culling and biosecurity changes to reduce disease spread.



Testing for Johne's:

One of the biggest challenges with Johne's is the difficulty to correctly identify infected animals. The reason for this is the mechanisms in which the Mycobacteria works. When a calf gets infected, the organism hides itself in the animal's white blood cells, meaning the immune system is not able to detect it, and thus there is no increase in antibodies. It is only after periods of stress that the Mycobacteria leaves the white blood cells and begins to travel to the intestine, where the immune response is mounted. While traveling, the immune system recognises the Mycobacteria and begins to produce antibodies. However, once the organism successfully enters the intestine, it is hidden once more from the immune system, and antibodies are no longer created. This cycle continues as the disease progresses resulting in intermittent shedding that makes it difficult to diagnose Johne's disease.

So how does this affect testing?

As shown in the graph, at certain points in a Johne's positive cow's life, she will have a high or low amount of antibody response to Johne's. To test these antibody levels, we use either blood or milk. If we use an antibody ELISA and we get a negative result, there are 2 possibilities:

- The cow we have tested is free from Johne's disease or
- The cow does have Johne's disease, but she is in a period where the bacteria is hiding, and the body is not able to build an immune response.

For this reason, some cows have a positive result one month followed by a negative result the next Eventually,

once the cow has passed a certain threshold, she will always come back positive (shown as Stage 3 on the graph).

The ELISA test has high specificity meaning we can be more confident in a positive result truly meaning the cow is infected. However, the ELISA test also has a low sensitivity meaning that false negatives can occur. Because of this it is important to interpret any ELISA results with the whole herd's status in mind, and use the ELISA test in combination with other tests such as:

- Faecal testing (either culture or PCR).
- PCR from a post-mortem examination.

Faecal testing also has high specificity, meaning we can have confidence in a positive result, but lower sensitivity, leading to false negatives.

Faecal tests are more expensive than ELISA tests and take longer to run. If you decided to run both tests, there is a possibility for contradicting results. This is mainly because cows mount an antibody response earlier in their life and therefore might not have started shedding antigen yet.

Testing normally starts when the cow is older than two because young animals are in the hidden stage of the disease, and it is therefore inefficient to attempt detection. It is advised to wait at least 7 days post calving before testing a cow's milk as the fat levels can affect the test. Individual milk testing should be done quarterly to increase chances of detecting an early peak in antibody levels. This can be frustrating if results keep changing but this is due to the nature of the disease and the more tests we have for a cow, the better understanding we have of her actual status which allows us to make appropriate decisions. It is recommended to wait 6 weeks after a TB test before testing for Johne's as, due to the similar nature of the bacteria involved, TB testing can interfere with the Johne's results. Although new research is suggesting this could be altered for farms progressing well with Johne's control.

So why should you monitor your herd for Johne's?

Red Tractor now requires regular testing for Johne's with some milk contractors limiting how many Johnes' positive cows are allowed to be milked on a farm. Some contracts will also not allow milk from red cows into the bulk milk tank. This is due to the possible link between Johne's disease in cattle and Crohn's disease in people.

If you decide you want to start testing your herd for Johne's disease, the first goal is to establish the herds status. This involves seeking out the disease, which can be done in 3 ways:

- Cull cow screening = Involves ELISA testing the blood and milk of cows before they leave the farm for culling. This is an effective way of defining status as cull cows are more likely to have Johne's disease and display clinical signs.
- Targeted 30 cow screening = Involves ELISA testing the blood and milk of 30 cows that are likely/thought to be infected.
- Whole herd screening = Involves ELISA testing the blood and milk of the whole herd. This is the most effective and accurate way of determining status.

Once status is established, continued testing is used for monitoring and to inform management changes. As a minimum testing should be done before dry-off and before breeding to allow for correct management decisions.

Cows that have had one or more positive results in the previous 3 tests are labelled "high risk". These cows should be discussed with your vet as soon as results are known to establish the best plan.

National Johne's Management Plan (NJMP):

The National Johne's Management Plan was set up in 2015 to help manage and control Johne's disease within the UK. Six strategies are available and in conjunction with your NJMP accredited vet one of these will be chosen to improve Johne's control on your farm.

Red Tractor now requires regular testing for Johne's with some milk contractors limiting how many Johnes' positive cows are allowed to be milked on a farm. Annual declarations are due by December as part of the programme. Some contracts will also not allow milk from red cows into the bulk milk tank. This is due to the possible link between Johne's disease in cattle and Crohn's disease in people.

Management:

In positive herds, the goal is to prevent transmission to any negative youngstock on the farm. This can be done in several ways:

- Calving yellow & red cows in individual calving pens instead of group calving areas.
- Thoroughly cleaning and disinfecting pens between every calving.
- Collecting and storing colostrum in a hygienic manner.
- Avoiding feeding pooled colostrum/milk to youngstock and pasteurise any colostrum before it is fed, due to the risk of infecting multiple calves.
- Avoid feeding milk from cows with high SCC, or mastitis as these cows have a greater Johne's risk.

Although calves are the main group that are at risk of contracting Johne's disease, it is still possible for older cattle to get infected. This means that it is important to reduce contact between high positive animals and uninfected animals (both directly and indirectly through faeces and slurry).

In negative herds, the goal is to avoid bringing Johne's onto the farm. This can be achieved through:

- Buying in replacements from Johne's free or accredited herds and aiming to buy all stock from one farm.
- Making sure that all animals that come onto the farm are tested prior to arrival.
- Buying in colostrum from low risk/Johne's free farms.
- Avoid putting youngstock onto fields that have recently had slurry spread on.
- Avoid sharing equipment and PPE especially around the calves.
- Ensure good hygiene for all visitors and staff.

Risk level	Classification	Johne's infection group	Definition	Infectious status
LOW	Green	J0	Repeated negative (min. 2 samples)	LOW risk – no evidence of infection
	Green	J1	Negative, but only one test result available (eg beginning of 1st lactation)	
HIGH	Yellow	J2	Last test negative but positive within previous 3 tests.	MODERATE risk – evidence of infection and may be shedding as a risk for calving and milk/colostrum
	Yellow	J3	Last test negative but positive previous test.	
	Yellow	J4	Last test positive	
	Red	J5	2 or more positive results in the previous 4 tests. Or 2 or more positive results in any 4 consecutive tests in a cows history.	HIGH risk – evidence of infection and highly likely to be shedding MAP (high level of infectivity)

Figure 2. Classification of cows depending on their Johne's test results

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