

National Johne's Management Plan – farmer FAQ's

Please see our leaflets and full plan for details of Johne's control: as a guide, these FAQs may help some immediate questions.

1) What is Johne's disease?

Johne's disease is a chronic, debilitating and irreversible disease of cattle and all other ruminants that affects the lining of their intestines, reducing their capacity to absorb both fluid and nutrients. While only a small proportion of cattle will show clinical signs of wasting or scour at any one time, it is likely that a much larger proportion of the herd are infected and only showing very mild if any, signs of the disease (e.g. higher cell counts, reduced milk yields, and increased susceptibility to other diseases).

2) What causes Johne's disease?

Johne's disease is caused by a bacteria known as *Mycobacterium avium* subspecies *paratuberculosis* (commonly known as MAP).

3) Where does Johne's disease come from?

The bacteria that cause Johne's can be shed in the faeces, colostrum or milk of infected animals, and is able to survive in the environment for a considerable period of time. Johne's disease is, however, most commonly introduced to a herd through purchasing infected replacement stock (including bulls). Importing slurry from other herds which may be infected, including stock from grazing off farm, and swapping colostrum between herds can also pose risk of introducing the disease into a herd.

4) When is the biggest risk period for animals becoming infected?

Animals are usually infected as young calves. Around 80% of infections occur in the first month of life, with the biggest risk period thought to be the first few days of life. Resistance to new infection increases as the animal gets older, and new infections in adult animals are relatively rare.

5) How do calves become infected?

The main route of infection for calves is the ingestion of faeces contaminated with MAP. Although direct ingestion of faeces does occur, calves are more commonly infected through ingestion of muck contaminated bedding, udders, teats or buckets. Calves can become infected by drinking colostrum or milk from an infected dam, or colostrum that is pooled and contains the milk from an infected dam.

6) Is the unborn calf at risk?

Although this is a less significant route of transmission, it can occur. It is however, usually only animals that are showing clinical signs of the disease or are positive on a blood test, that pose a risk of passing the disease onto their unborn calf.

7) Why, if they are infected as calves, don't you see signs of Johne's until later in life?

Despite picking up the infection when they are young, they can be infected for a variable length of time, often years, without showing any signs of disease or being a source of disease to other animals. At a certain point, the immune response of the cattle towards the bacteria can change and

they will start to show outward signs of the disease. At this point, they also become infectious to other animals.

8) How can I minimise the risk of introducing Johne's into my herd?

Developing and implementing a Johne's Management Plan on your farm, with your vet, which considers all the risks appropriate for your particular set up is vital. If you are purchasing stock, it is imperative that you review the overall status of the herd where you plan to buy from as remember, young animals may test negative for Johne's disease despite being infected. Review the advice in our Buying Guide and plan all purchases with your vet.

9) Do I have to test as part of this?

Controlling Johne's disease on farm is as much about risk assessment as it is about establishing a status through testing. Do you know where your biggest risks are and how you can manage them? Depending on your staffing, budget and other needs on the farm, you need to work out with your farm vet which of the six Johne's strategies is right for you and your herd to start to control the disease, even if this is just to keep the disease out if you are a low risk herd.

10) My farm has never had a clinical case of Johne's disease so that means I don't have it?

Clinical cases of Johne's disease are the "tip of the iceberg" and their absence **DOES NOT** mean a herd isn't infected. Infection with Johne's disease is commonly associated with production losses and infected animals may be culled prematurely due to other reasons (such as increased SCC and lameness), which you may not associate with Johne's. Where clinical cases are seen there will be many other sub-clinically infected animals in the herd a proportion of whom are likely to be infectious.

11) How can I establish my herd's Johne's disease status?

Whilst bulk milk testing is available it is **NOT a suitable method** of determining a herd status as a negative result gives little information about the herd's Johne's disease status. Speak to your BCVA Johne's Accredited Vet for advice on suitable testing.

12) Are blood tests more accurate than milk?

The same ELISA test is used on blood and milk (cut off values are adjusted to fit each sample). So long as samples are accurately identified the sensitivity and specificity of both tests are the same (40-80% and >99% respectively).

13) When should I sample cows for control purposes?

Strategic testing allows for informed management decisions by identifying high risk animals and preventing them from spreading disease further. The most suitable time to sample is at drying off which allows positive cows to be managed differently with respect to calving accommodation and colostrum/milk management. Ideally cows should also be tested prior to breeding. This allows decisions such as breeding to beef or perhaps not re breeding to be made (which will depend on the protocols of a particular unit). The more frequently an animal is tested the more confidence we have in the test result.

14) Does TB testing affect Johnes's disease testing?

TB testing interferes with Johnes's antibody testing. A **MINIMUM of six weeks** should be left between TB testing and Johnes's tests. Speak to your BCVA Johnes's Accredited Vet for advice regarding fitting your Johnes's testing in around your TB tests.

15) What is the biggest risk of introducing Johnes's disease onto my farm?

Whilst there are many ways of introducing Johnes's onto a farm, **by far the greatest risk is bought in cattle**, whether that be adult cows, breeding bulls or calves. As such purchasing animals should be avoided if possible. The risk of disease introduction increases with both the number of animals introduced and the frequency. Speak to your BCVA Johnes's Accredited Vet about how to reduce the risks posed by purchased animals.

16) Can't I just vaccinate?

Although firebreak vaccination is one of the six management options several factors need to be seriously considered. **Vaccination is generally the strategy of last resort** and should **only be used where none of the other strategies are achievable**. Once vaccination is implemented Johnes's test results are extremely difficult to interpret (positives due to vaccine or having the disease?) and as such it is often impossible to use any strategic testing. Additionally vaccinated cattle may give rise to false negative or false positive TB test results. Vaccination does **NOT reduce disease prevalence** but may delay the onset of clinical disease. A number of milk processors/ retailers will not support vaccination as a strategy.

17) I want to pool my colostrum and milk, is this a risk?

Colostrum/milk from high risk cows should **NEVER** be fed to replacement heifer calves. Good milking hygiene is imperative in preventing contaminated faeces being incorporated to the milk fed. Own dam to calf is the aim. If this is not possible colostrum hygienically harvested and stored from another test negative dam is perfectly acceptable and can be more practical in larger herds. Pooling of milk and colostrum and feeding this raw especially when there is a danger of high risk cows contributing to this milk can introduce a risk of infection of "one cow to many calves". Pasteurisation of colostrum and can be used as part of a Johnes's management plan, but is insufficient on its own to control the disease. Overall improved farm management is necessary.

18) Segregating positive cows is really difficult on my farm, just how important is it?

A common reason for Johnes's disease control plans not working is the inability of farmers to reliably separate high risk cows from the maternity areas. Key areas to focus on in the control plan are identifying higher risk cows (test positive, offspring of test positive animals) and clearly identifying these animals using tags and leg bands. Ensuring repeat test positive and animals with high test results are removed prior to calving will reduce the burden on segregation.

Segregation is a crucial part of the Improved Farm Management and Strategic Testing programme. If you can't achieve it consistently then another strategy may be more suitable for your farm, speak to your BCVA Accredited Johnes's Vet for advice.

19) How do I know if my vet is an accredited BCVA Johnes's Veterinary Advisor?

We update our website every week with all the vets who have passed the BCVA Johnes's training and are therefore 'approved vets'. You can find out if your vet is on this list by following <http://www.actionjohnesuk.org/bcva-action-johnes-accredited-veterinary-advisors/>