

XLVets is a novel and exciting initiative, conceived from within the veterinary profession aimed at supporting UK agriculture as it faces challenges in the 21st century.

We are a group of farm animal committed veterinary practices, and as such our policy is to work together, alongside commercial research and manufacturing companies, to share best practice on advice and disease prevention initiatives so providing the first point of call on health management and consultancy advice and facing up to the plethora of current on-farm consultancy advice other than from the veterinary surgeon. We are interested in the development and creation of markets for the economic advantage and support of our clients' long term future and prosperity.

The aim of the group is to put veterinary surgeons at the heart of their clients' farming enterprises, offering independent and high quality advice alongside other specialist advisers. We are dedicated to the survival and growth of the livestock farming industry and wish to work with like-minded, committed professionals.

**We are constantly seeking cost-effective preventative medicines and consumables and looking to advise on best practice.**

**Our primary aims are 4 fold:**

1. To be a primary source of on-farm advice and the central co-ordinating consultant for other farm services for our clients.
2. To be committed to the sharing of current best practice advice to our clients through direct XLVets newsletters and client training, associated with our own high levels of Continuing Professional Development (CPD).
3. To be highly competitive in the health and medicines market with not only Prescription Only Medicines (POMs) but also re-establishing the vet as a primary source for on-farm Pharmacy and Merchants List (PML) and other medicinal and consumable products supported by impartial professional advice.
4. To improve our own efficiencies and reduce our costs by economies of scale over a wide range of practice needs and requirements.



For further Information, please contact your local XLVets Practice.

[www.xlvets.co.uk](http://www.xlvets.co.uk)

Committed to UK Farming  
**EXCELLENCE IN PRACTICE**



# FACT SHEET 23

## JOHNE'S DISEASE

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# JOHNE'S DISEASE



Johne's disease is a chronic disease which, after a period of scouring and weight loss, ultimately results in the animal's death. It causes huge economic loss to the national cattle industry and yet its presence goes unrecognised in many herds.

Johne's disease is caused by a bacterium, *Mycobacterium avium* subspecies *paratuberculosis* (or Map for short). Cattle can become infected with Map at any age although infection within the first few weeks or months of life is most common. Calves can even become infected before they are born.

Following infection, bacterial multiplication is slow so that clinical signs of disease are usually only seen once the animal has reached between three and six years of age. However it is still possible for animals as young as 18 months, to show signs of clinical disease.

## Signs of Johne's Disease

The classic signs of Johne's disease are scouring and weight loss despite, in most cases, the affected animal remaining bright. Although periods of remission may be seen in which the affected animal appears to improve in condition the disease is essentially irreversible. Eventually oedema ('bottle-jaw') will be seen, the animal will become emaciated, and death will follow.

However, prior to clinical disease there is a reduction in productivity in the pre-clinical phase. The financial losses that result are of great significance. Fertility of bulls and cows is reduced. In fact, the breeding lifespan of Map infected animals is estimated to be approximately half that expected of uninfected animals. Milk production is also reduced so, for example, suckler calves born to infected dams are likely to show poorer than expected growth rates.

## Diagnosis

To determine whether Johne's disease is present within a herd the first step is to isolate and then test any animals showing signs consistent with the disease, i.e. poor condition and diarrhoea.

A reliable indication of the prevalence of the disease within a herd can be obtained by screening all animals that are culled. This may reveal Map-infected animals which are not yet displaying the classic signs of the disease but as a consequence of their infection, are being culled, e.g. failing to conceive during a defined serving period.

## Herd Health Planning

In order to minimise the losses caused by Johne's disease it is important to define a herd's disease status and then to take

appropriate action. If Johne's disease is confirmed in a herd, controlling the disease to limit its impact will depend on biosecurity, hygiene and enlisting the farm vet's help to identify Map-infected animals so they can be culled thereby minimising the spread of the infectious organism in the environment.

## Steps to identification and removal of Map-infected animals:

- Isolate all adult animals showing signs of diarrhoea and weight loss, and test for disease
- Cull animals confirmed to be suffering with Johne's disease, and those animals in which the disease cannot be ruled out
- Trace the offspring of infected animals and ensure they are not kept as replacement breeding stock as there is high risk that they are also infected

**Hygiene:** This is particularly important at calving and for the first few weeks or months of the calf's life since this is when there is the greatest vulnerability to infection. Calving yards or boxes should be kept as clean as possible to not only reduce the exposure of newborn calves to the infectious agent, but also to keep the teats and udders of freshly calved cows as clean as possible. In herds known to be infected with Johne's disease, the feeding of pooled colostrum and cross suckling should be avoided.

## Other hygiene precautions:

- Prevent faecal contamination of feed and water supplies and keep troughs clean
- Provide mains water and fence off other water sources, particularly areas of stagnant water
- Keep your cows and their environment as clean and free from faecal contamination as possible, especially during the calving period and for the first three months of the calves' lives
- Spread dung or slurry on arable land. (If this is not possible, grass that has had dung or slurry spread on it should not be grazed, preferably for at least a year following the application.)
- Avoid co-grazing with other livestock that may be infected and control rabbits.

**Vaccination:** This may have a role in helping to control Johne's disease but

only in heavily infected herds to reduce the incidence of clinical disease while other hygiene measures are put in place to reduce the incidence of Map infection. It is not a long term solution, as it will not necessarily prevent infection with Map or the disease spreading. It may also interfere with the diagnosis of bovine tuberculosis.

## Biosecurity

If Johne's disease is not present in your herd, biosecurity precautions to prevent its introduction are vital. This means screening all replacement animals.

However, Johne's disease has a long incubation period, and so the sensitivity of the currently available laboratory test is relatively poor. This means a single negative test on a young replacement breeding animal, whether bull or heifer, is relatively meaningless.

Of greater reassurance is evidence about the status of the herd of origin of the replacement animals. Ideally the herd of origin should be accredited free of disease with a scheme compliant with CHcCS standards.

The longer such accreditation has been maintained, the greater the confidence that can be placed in it. If replacements cannot be sourced from herds with such accreditation they should at least be sourced from herds with some evidence of active surveillance for Johne's disease.

