



DAMORY LODGE EDWARD STREET BLANDFORD FORUM DORSET DT11 7QT
TEL : 01258 452 626 FAX : 01258 453 548 www.damoryvets.co.uk

Johne's Disease

Johne's disease is a chronic, progressive, wasting condition that affects all ruminant and is caused a bacterium (*Mycobacterium avium* subspecies *paratuberculosis*), which is very similar to TB. As with TB, there is no cure.

Clinical Signs:

Weight loss and Diarrhoea in adult cattle. Normally chronic and progressive, although periods of improvement can occur.

Causes of Infection:

Main route of infection is orally, mainly in the first six months of life by ingesting faecal material (sucking dam with dirty udder, contaminated calving box, contaminated colostrum, particularly if pooled, or waste milk etc.). In a previously disease-free herd, the most common source of infection is an infected bought-in replacement or bull. The incubation period is several years (1 to 15 years, although usually 3-6 years), thus is a disease of the adult cow or bull, but the bacterium can be shed and infect others *before* clinical signs become detectable.

Iceberg concept:

For every advanced clinical case there are 1-2 clinical, 4-8 subclinical and 10-14 silent carriers in the herd.

Diagnostic tests:

Dung (faecal culture or smear), blood and milk can all be used for testing.

The tests are reasonably accurate if positive (very specific)

They are reasonably sensitive in clinical cases

They have poor sensitivity in subclinical cases/carriers – early stages of infections are difficult to detect, therefore they may be shedding bacteria and infecting youngstock for years before they are diagnosed. The test sensitivity improves with age.



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Importance for the consumer:

A link with Crohn's disease in humans (chronic enteritis) is in discussion. The Johne's disease agent is not completely inactivated by pasteurisation and has been detected in milk in supermarkets. Until a link can be confidently rejected a precautionary approach on all levels of the food chain is recommended.

What to do on farm?

It's not all bad news; there are things which can be done!!!

The following measures are recommended:

- Run a closed herd if possible
 - Spray slurry on arable fields, not pastures
 - Investigate every case of diarrhoea in adult cattle, cull infected cows
 - Calf rearing has the biggest impact on future disease rates.
- clean calving area (low faecal contamination of udder)
- calves should only get colostrum from own dam, otherwise an infected cow infects more than one calf

Herd testing?

As the test is better in older animals, those can be used as a starting point. Additionally, cull cows can be tested before they leave the herd. Subclinical Johne's disease increases the susceptibility to other conditions (mastitis, infertility, poor yield), and cows culled for these reasons may be carriers. If positive, their offspring can then be targeted (tested, segregated, culled). Some cattle health schemes (e.g. herd care) offer routine testing for Johne's disease.

Conclusion:

Due to the long incubation period, control and eradication is a long term process, but not impossible. Many of the recommended measures (e.g. cleanliness) are also beneficial for other conditions (mastitis, calf diseases etc).

Please contact us to discuss a practical programme suitable for your farm.