

ADVANCE

cattle health scheme

Mycobacterium avium subsp paratuberculosis (MAP) Johnes' Disease



- ◆ MAP is a chronic inflammatory disease of the intestines.
- ◆ Infection is acquired by ingestion, commonly from an infected dam or contact with infected cattle. Sero-positive cows should be calved in isolation followed by cleansing and disinfection and the calves and colostrum should not be retained.
- ◆ Infection occurs early in life but clinical signs may not develop until the animal is several years old.
- ◆ Identification of infected, but not affected, individual animals is difficult.
- ◆ **Establishing the Johne's disease status of the overall herd is an important step to assist in interpreting results from individual animals.**
- ◆ Infected cattle are more susceptible to other infections, lameness and are often "poor doers" before they finally succumb to disease.
- ◆ Identification of infected "families" in a herd enables rational culling and helps to reduce the number of infected cattle in the herd.
- ◆ **Culling alone, without improving hygiene around calving and ensuring young calves are reared away from potentially infected older cattle, will not reduce the incidence of disease.**
- ◆ In beef herds, if culling all sero-positive cattle is not financially viable, splitting the herd is an option. Herd replacements should only be kept from the "clean" group.
- ◆ There is a suggestion MAP may be involved in Crohn's disease in humans, although a link to cattle has not been proven.

Guide to Sampling

- ◆ Whole herd blood testing is the best way to assess how widespread the infection is in the herd.
- ◆ Blood testing 30 cows > 3 years old on a one off basis is an alternative method of establishing the herd Johnes' disease status.
- ◆ Ideally, blood samples should not be collected within 6 months of a TB test to minimise the risk of false positive results.
- ◆ A bulk milk test is available for dairy herds, but is not yet considered accurate enough to use in eradication programmes. Combining quarterly bulk milk tests with blood testing all cull cows can provide cost effective, ongoing surveillance where whole herd testing is not an economic option.
- ◆ Infected animals shedding infection can be identified by PCR on a faeces sample.
- ◆ Environmental faecal testing protocols are also available to screen for the disease.

Samples Required

Serum (clotted blood)
Faeces



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