Part 1: Bulk milk PCR

Quarterly BVD virus tests will be scheduled on bulk milk samples that are already held within the NML fridge, so there is no need for additional sampling. Where multiple tanks are sampled on one farm, either each sample will be tested and the extra samples charged for, or a composite sample may be provided by the farmer.

Why use bulk milk testing?

Surveillance of the bulk tank using PCR, which looks for the RNA of the virus is useful to identify herds with active infection and / or Persistently Infected (PI) animals in the adult milking herd.

PCR works by identifying the presence of virus in the sample. A positive result means that one or more cows that have contributed milk to the sample are infected. Therefore, a positive result means that BVD infection was active in the herd on the day of sampling.

Validation of the PCR test shows that it is capable of detecting virus from one PI cow in groups of up to 300 contributing to a bulk tank sample. Further dilution studies conducted by NML, show the test is in fact capable of detecting the virus in bulk milk samples up to 1000 cows.

It must be remembered that on any given day, not all cows will be contributing to the bulk tank as some will be dry and some will be withheld due to illness or drug treatments. By repeating this test quarterly, the adult herd can be effectively monitored for PI animals and the chance of any cows being missed from the screening is reduced.

This, together with the repetition of testing gives confidence that BVD HerdCheck Dairy will reliably identify active infection in herds up to 1000 cows contributing to the bulk tank.

Flying Herd testing schedule

BVD HerdCheck bulk milk testing will be scheduled quarterly. Tissue samples may be submitted at any time during the 12 month period.

A progress status will also be shown within Herd Companion offering a simple way of checking which samples are outstanding in order to complete surveillance for that year.

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Part 2: Tag & Test

Ear tissue samples, will be tested for the presence of BVD virus using an antigen test (ELISA method) allowing the accurate identification of PI animals. Every calf born on the premises, whether dead or alive, should be tested as soon as possible after birth along with all new animals introduced into the herd.

On insertion, the tag cuts a disc of tissue and seals it into a vial which disconnects. Both vial and tag display a unique identification number. Tissue samples can be taken using official identification tags or management (button or flag) tags and the sample vials will be tested at our laboratory in Hillington. Results will be received within five working days of sample receipt at the laboratory. Any age of animal can be tested using this method but it is recommended that animals are tagged as young as possible so that PI calves can be identified and removed quickly to reduce the spread of the virus. A PI animal can be identified within the first week of its life, if tagged at birth. This testing strategy also gives you information about the calf’s dam, as a PI dam will always produce a PI calf.

Why tag EVERY calf?

It is important that ALL calves born on the premises are tagged (even those that will not be kept as replacements) to ensure that any PIs are identified quickly to limit damage from the virus. It is recommended that dead calves, stillborn and aborted foetuses are tested by tagging with a management tag. This is because they could have died as a result of BVD virus and can provide important information on the dam. Incoming stock or suspect animals should also be tested using the Tag & Test method. Vaccination has no affect on Tag & Test results as it has no effect on the presence of virus in PI animals and thus they will still test positive after vaccination.

Tag & Test positive result – what next?

An animal with a BVD positive antigen result is likely to be a PI and should be moved to isolation for three weeks prior to a follow-up test to confirm its disease status. The dam should also be tested. Consult your vet for advice on retesting positive animals and to look for further infected animals. Calves should be at least 30 days of age before a blood sample is taken for a confirmatory test however a further tissue sample may be used at any time from 21 days after the first sample was taken.

Empty vials

All vials are visually checked by laboratory staff to ensure that sufficient tissue is present to test. If an empty or damaged vial is found, you will be contacted. If you are using Nordic Star Tags a replacement vial is sent out to retest the animal free of charge.

Biosecurity tips

1. Find out the individual status of any purchased or introduced animals and the status of the herd of origin.
2. Cows that have become infected in pregnancy will be antibody positive but could still be carrying a PI calf.
3. Bulls can be a risk of infection even if they are antibody positive. Consult your vet when considering buying a bull.
4. BVD spreads easily, so protect your cattle from infection at farm boundaries.

Recommended tag supplier

Nordic Star are the recommended Tag & Test supplier www.nordicstar.co.uk. Please note that animal ear tags are not included in the price of BVD HerdCheck. Only tissue samples tested at NML are eligible for BVD HerdCheck.

To enrol please call 01902 749920