



“Actiphage” Test for Tb.

Many of you are probably aware of the Actiphage test for detecting *Mycobacterium bovis* in cattle that was announced by Nottingham University and PDB Biotech last November. Indeed the test will also be able to be tweaked to detect Johnes. How does it work?

- The bacteria can be detected in blood or milk samples by using a virus called a phage. Phages multiply inside bacteria cells and each one is specific to a particular bacterium. The phage seeks out any mycobacteria, invade them and multiply. The increased number of phages can then be detected in the laboratory with the results in six hours.
- The test is very sensitive and does not produce false positives or negatives. Also it does not give a false positive in cattle vaccinated with BCG as it relies on live bacteria.
- It detects animals that are ‘infected’ that are not yet necessarily ‘infectious’. A Polymerase Chain Reaction (PCR) on a dung sample will confirm an animal is infectious although this test is also awaiting full validation.

The test is yet to be fully validated and accepted by APHA (only the skin and gamma interferon tests are officially accepted with an antibody test also in certain circumstances). However, following on from an unofficial trial on a dairy farm which had failed to become Tb free after 5 years of 60-day testing and gamma interferon testing the Actiphage test found other infected cattle which were isolated from the rest of the herd and sent for slaughter. The result was the first clear skin test in 5 years without killing one badger. This trial showed there are undetected infected animals in infected herds (about 25% slaughterhouse cases are found in skin test negative animals) that can propagate infection – it will change

the emphasis on eradication protocol if it gets full approval. There is progress from APHA who have announced the use of Actiphage for “exceptional private use” in herds which are still under Tb restrictions after several 60-day tests and herd gamma interferon have failed to clear the problem. The farm vet has to go through the APHA vet for that farm to get permission, a written consent from the farmer must be received agreeing to share the results with APHA including any positives. There will be no compensation for slaughtered animals. APHA will pay for gamma testing and are being more proactive in herds with repeat reactors.

Other News

1. Flock Check by MSD offers free lab fees on 5-6 blood samples for detecting Enzootic Abortion or Toxoplasmosis in sheep and the offer is on until July 31st. Please contact us if you think you may have had abortion from these infectious agents.
2. Cattle Respiratory virus serology fees for IBR, BVD,RSV and PI3 are subsidised by Zoetis. Calves sampled must be over 5 months old and unvaccinated. Now is a good time to see which viruses were responsible for that pneumonia outbreak last winter so we can advise on vaccination protocols.



CIDR Ovis

Dairy farm clients are used to seeing us use 'T' shaped plastic progesterone impregnated intra-vaginal devices to help bring cattle in to season or for synchronisation. A smaller version of this has now been launched for the induction and synchronisation of oestrus in sheep when used with 500 units of chorionic gonadotrophin at removal at day 12. Zoetis claim better pregnancy, fertility and twinning rates compared to the sponge and less incidence of vaginal discharges at removal. They are more expensive, but to us they represent an improvement on what is currently available. Ewes come in to heat 1-2 days after removal so you will need more rams (1 to 10 – 15 ewes).

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