

Newsletter August 2010

Infectious Diseases:

BVD continues to be a problem on many farms. It is a major cause of infertility in cows, causes abortions and weak or stillborn calves and poor immunity resulting in other infectious diseases.

Over the past few years many herds have been vaccinated to try to control the disease. Calves growing in the uterus become infected and can be born persistently infected (PI). Vaccinating cows before they are served helps to prevent spread to the next generation of calves. When we first embarked on vaccination programmes, following a diagnosis based on serological evidence of BVD, we had hoped that over several years we would establish a disease free herd. In some cases this is true but in others this would appear not to be happening, herds where clinical signs of BVD persist.

Why is this happening? Sadly no vaccine is 100% effective, vaccines may have been given too late to protect calves, cows may have been too stressed to react correctly to the vaccines and PI cows are more common than we originally suspected. We were led to believe that a PI would die before calving for the first time but they have been found to live much longer and will always produce a PI calf, even if correctly vaccinated.

In herds that have been vaccinating for several years, we now have a test that will show if active BVD infection is present in the herd. A bulk milk sample, or an individual blood sample can be tested for BVD PCR. This test is detecting viral DNA. It is a very sensitive test and will identify one positive cow in a herd of 200 cows. This test is relatively cheap to run at around £28 and is the best way to monitor a vaccinated herd and ensure they remain disease free.

If the PCR test is positive it confirms that vaccination is needed and indicates that an investigation should be undertaken to identify the positive animals. While PI animals are in a herd they will be exerting a significant negative effect on the herd performance. Please collect the appropriate container with a preservative added from the surgery for your herd's BVD PCR test.

JHC

Infectious Bovine Rhinotracheitis

IBR is a respiratory disease of cattle caused by the Bovine Herpes virus type 1. Herpes viruses can become latent in carrier cows. Then at times of stress these carriers will excrete the virus again passing the infection to susceptible animals in the herd. There are lots of strains of IBR virus with some producing a mild disease and others peracute or fatal disease.

Sometimes all you see is a slight milk drop perhaps with a high temperature. Sometimes conjunctivitis and eye discharges or nasal discharges and a severe cough will be evident.



Abortions can occur due to the fever, weeks or months later. Some cattle will develop bronchopneumonia and some will become latent carriers maintaining the infection in your herd.

We test for IBR antibody level in bulk milk samples on dairy farms. In many of our herds the IBR antibody levels are high showing infection is present but few clinical signs of IBR are seen. We assume you have one of the mild strains in your herd.

In herds where IBR has been a problem in bought-in cattle or when heifers join the dairy herd, we often just advise vaccinating the bought-in animals.

Sometimes we recommend whole herd vaccination. This can be done every 6 months, usually Spring and Autumn. It all depends on the symptoms you are seeing in your own herd.

Much of Europe – Norway, Sweden, Finland, Denmark, Austria and Switzerland is IBR free. Other countries such as Germany, Netherlands, Belgium etc. have national eradication programmes. These involve lots of testing to find and cull the carrier animals. Marker vaccine is used to protect the other animals in the herd. Blood tests looking for antibodies can differentiate between naturally infected animals and animals vaccinated with a marker vaccine. Then of course controls on bought-in animals with possible quarantine periods is involved as well.

JT