Bovine Viral Diarrhoea (BVD) - Mucosal Disease

What is Bovine Viral Diarrhoea (BVD)?

BVD is described as an RNA virus which is classed as a pestivirus, similar to the border disease virus which infects sheep and classical swine fever.

BVD is spread by animal to animal contact and thought to be endemic in over 85% of UK dairy herds.

BVD is considered the most economically damaging cattle disease today.

The virus is quite complicated and can enhance other, apparently unrelated problems, such as; reduced fertility, foetal abnormality, calf immunity and pneumonia, mucosal disease.

One important aspect of the disease concerns infection of the cow in the first four months that results in a live birth. The calves are considered ‘persistently infected’ (PI), and unless removed from the herd, will provide a constant source of infection, continually shedding the virus. Many of these PI animals will develop a fatal enteritis (mucosal disease) before reaching adulthood, but some will survive a number of years although are sickly and poor performers.

Bulls who are severely infected can also pass the virus on through their semen.

Diagnosis

In a lactating cow, fertility can become negatively affected as BVD can cause early reabsorptions from 6 to 8 weeks. Infection during the gestation period can result in abortions and deformities.

BVD causes oral ulcers and lesions of the abomasum, intestine and colon.

Symptoms of a PI animal suffering secondary mucosal disease can include diarrhoea, anorexia, ulcers inside the cheeks, nose and on the tongue, limping and prostration leading to death often within 5 to 10 days.

Diagnostic methods are available. For general herd health status, bulk milk samples can be analysed to screen the extent of a problem.

It is recommended that a batch of youngstock cohorts are blood sampled after 10 months of age. The presence or absence of antibodies will indicate whether the BVD virus is active within the herd.

Once BVD infection is confirmed, all animals over 4 months of age can be screened for antibody. Those with a negative or low level are then tested for the actual virus. A virus positive animal can then be removed from the herd.

An initial negative screen for antibodies is the first step towards Disease Free Status Accreditation. This can also be achieved by employing a testing regime followed by two clear tests on subsequent groups of youngstock.

Treatment

Reliable vaccines are available and considered the only effective long term protection against BVD.