



DAMORY LODGE EDWARD STREET BLANDFORD FORUM DORSET DT11 7QT
TEL: 01258 452 626 FAX: 01258 453 548 EMAIL: office@damoryvets.co.uk www.damoryvets.co.uk

Schmallenberg Virus Update

Background information

The first cases of Schmallenberg virus (SBV) were suspected in the south and east of England in early 2012. This virus appeared to mainly affect cattle causing a mild to moderate fever, reduced milk yield and transient scour with potential loss of body condition. It was also shown to cause foetal abnormalities, abortions and stillbirths, not only in cattle but also sheep and goats.

Transmission

This family of viruses are primarily spread by biting insect vectors, such as midges and mosquitoes, although the routes of Schmallenberg virus transmission have not yet been confirmed. The potential for direct transmission (i.e. direct from one animal to another) is therefore, as yet, unknown. Research work suggests that live infected animals have the virus in their blood stream for 2-5 days post infection and it is during this time when biting insects may acquire the virus which they can transmit to another susceptible animal during blood feeding.

Clinical Signs

1. Adult animals

In adult cows the acute infection results in diarrhoea, fever, a reduction in milk yield, with a full and rapid recovery over several days. (see later)

2. Newborn animals

The second presentation of the disease is associated with abnormalities in animals born alive or dead at term, or aborted following infection of the dam. Malformations observed to date include bent limbs and fixed joints, twisted neck or spine, a domed appearance of the skull, short lower jaw and brain deformities and marked damage to the spinal cord. Some animals are born with a normal outer appearance but have nervous signs e.g. blindness, recumbency, an inability to suck and sometimes convulsions. It is thought that once infected that these animals will develop a strong immune response which will protect infected animals from subsequent ill effects.

Diagnosis

There are now a number of tests (both tissue and blood) that can be performed to identify SVB within the herd/flock. The latest of these that can be used in dairies is a **bulk milk sample** (Biobest labs) which will let you know if your herd has experienced exposure. The cost of this test (including P&P) is **£15.00**.

Blood sampling of individuals or groups of animals is also available for both cattle and sheep at a cost of £4.20 per sample (plus handling costs). See our previous letter for further information or give us a call.

Treatment and control

We know from national surveys that the prevalence of the disease is high in the south of England but it would be still be useful to know if your herd/flock has been exposed. We can assume that if your stock have experienced neonatal deformities as mentioned above then there is a high chance that they were exposed.

Currently there is little that can be done to protect in contact animals as all routes of transmission have not been established but we are hopeful of a vaccine being available soon to provide complete protection. We will keep you informed of its availability as soon as we have any news.

Whilst we still do not know all the facts about Schmallenberg there are a few points worth bearing in mind.

As it is not thought to be transmitted directly from animal to animal and needs a midge to pass between animals it is unlikely to cause scour or acute milk drop between November-March.

Foetal abnormalities are thought to be caused when the dam is infected between 28-56 days in sheep and 76-176 days in cattle. As yet there is no conclusive evidence that early embryonic loss/foetal loss/infertility is caused outside of this window but any state of fever can produce these effects.

The effect on milk production is thought to be short lived and only of a few days duration.

Once infected antibodies remain high for quite a long time. Therefore a positive antibody in blood or bulk milk is difficult to quantify – all it means is the animal/herd have been previously exposed, but it would be difficult to say what percentage of the herd has been affected or when infection occurred.

Many Autumn lambing flocks seem to have been affected at quite a high level – probably as the susceptible stage of pregnancy coincided with maximum midge activity.

We now have a vaccine available to us which, in cattle will require 2 injections 4 weeks apart but in sheep will require a single injection to stimulate an immune response. The initial cost of the vaccine will be around £3.00. Once we have more details we will keep you informed