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June 2013

### **Schmallenberg Vaccine Now Available**

The Veterinary Medicines Directorate (VMD) has granted MSD Animal Health a provisional market authorisation for its Bovilis® SBV vaccine as a safe and efficacious product for the control of SBV. Non-pregnant, healthy female cattle can be vaccinated intra-muscularly from two months of age. The primary vaccination course requires two 2ml doses to be given approximately four weeks apart. Non-pregnant, healthy ewes can be vaccinated subcutaneously from four months of age. Sheep only need a single 2ml dose.

Onset of immunity is from three weeks after the second vaccination in cattle and the single vaccination in sheep. Further trials have yet to determine whether annual boosters will be required.

#### **When is the peak disease risk period?**

Animals are most at risk during the warmer months when infected midges are active. The effect on non pregnant animals and youngstock is usually transient and may go unnoticed (very few signs in sheep and a possible short term fever/scour and milk drop in cattle).

However, it is pregnant ruminant livestock that are most vulnerable and it is their unborn foetuses that bear the brunt of the worst effects of the disease. The peak risk period for foetal deformities in sheep is between 28-60 days of pregnancy, while cattle have a longer and later risk period of between 80-140 days of pregnancy. It is thought that infections before these periods may cause infertility, foetal death and reabsorption/abortion, but as yet there is no research data available to confirm this supposition.

#### **Vaccination Recommendations:**

##### **Batch-Calving Herds and Sheep Flocks:**

Vaccinate all breeding animals (including bulls/rams) at least 3 weeks before service/tupping.

For herds/flocks that are due to start service/tupping imminently the benefits of giving the vaccine just before or during the service/tupping period need to be balanced against any possible detrimental effects on conception rates arising from handling and vaccinating the animals at this time. The risk of the vaccine causing infertility and embryonic loss is considered to be low.

## **Year-round Calving Herds:**

The vaccine has provisionally been licensed for use only in **non-pregnant** animals because studies assessing the safety of giving the vaccine to pregnant animals have yet to be completed. So far these studies have not demonstrated any adverse effects when used in pregnant animals but we currently cannot officially recommend using the vaccine in pregnant animals without discussing the risks.

The benefits of using the vaccine in pregnant animals would have to be balanced against the absence of completed safety data. It should be remembered that the peak risk period for foetal abnormalities occurs when cattle are infected between days 80-140 of pregnancy and sheep are infected between days 28-60 of pregnancy. There will therefore be little benefit in giving the vaccine to animals if the course cannot be completed before these risk periods.

### OPTION 1

Although a logistic headache, it may be safer to look at the calving pattern, and only vaccinate cows that are not pregnant (or in the first 2 months of pregnancy), so as the vaccine is effective for the risk period (day 80-140) to protect the foetus, and then vaccinate the remainder of the herd in batches of 10 when they are freshly calved.

The herd could then all receive a booster next Spring (irrespective of stage of pregnancy) if that is what is deemed to be required, and more trial data has been gained.

### OPTION 2

Whole herd vaccination (breeding stock only) – this is the easiest way to vaccinate as all cows are done at the same time, and all will require their second dose and boosters (if required) together. However, full trial work is not yet available with regards to use in pregnant animals, and any cattle that are at the susceptible stage of pregnancy before the vaccine becomes effective could still get infected by natural infection and produce a Schmallerberg affected calf – this would not be a vaccine failure or reaction.

### **Costs:**

The Schmallerberg vaccine will cost £3 per dose (exc. VAT).

It will therefore cost £6 per cow to complete the two dose course and £3 per sheep for the single dose required.

The vaccine is available in 100ml (50 doses) and 20ml (10 doses) vial sizes.

If you would like to discuss how vaccination could help you control the impact of Schmallerberg disease on your unit, please contact the practice.

