Schmallenberg Virus Update

It is now over a year since the 1st reports of a novel viral disease, now known as Schmallenberg, in Northern Europe. The initial clinical signs were of fever, reduced milk yield, inappetence and loss of condition, with diarrhoea in a proportion of cases. Reports of congenital abnormalities in sheep, cattle and goats followed. In the early part of 2012 275 UK farms reported cases of Schmallenberg virus (SBV), of these 56 were in cattle. The farms initially affected were those that were predicted from the likely distribution of wind-blown insect vectors and were restricted to the South and East of a line drawn from the Severn to the Humber. There is thought to be a very low likelihood of any risk to human health.

It now seems likely that the virus has become established in native GB midges and we are seeing further spread of cases. Acute disease has been reported in North and West Yorkshire, Northumberland, Lancashire, Devon, Cornwall and several counties in Southern England that previously had cases of congenital abnormalities; there is evidence of seropositive animals in Wales.

Practitioners and farmers need to be vigilant for possible signs of acute SBV. The clinical signs of Schmallenberg in adult cattle include fever, milk drop with or without diarrhoea affecting a number of animals in a short period. The effect of SBV on pregnancy may vary according to the gestational age and return to service or early embryonic death may also be seen. As the virus moves into new areas we may see the pattern of congenital abnormalities that were seen last year in the areas which are now endemic, i.e., farmers in the North of England, Scotland and Wales will need to look out for birth defects and be prepared to seek early veterinary assistance at calving/lambing to avoid trauma. It is also possible that spread of the virus throughout the summer may have led to infection of breeding females prior to conception and in such cases immunity and a normal pregnancy are likely.

In practical terms there is little that can be done in many cattle herds to reduce the risks of SBV if in an endemic area. A vaccine is in development and it is to be hoped that this will be available in the near future. Control of midges is unlikely to be substantially effective. Delay of insemination past the midge season is not practical in most cattle herds but could help if it can be done. While a serious and distressing disease it should be remembered that in the majority of affected herds the proportion of affected calves with congenital abnormalities has not been high. While it is not likely to be possible to prevent the long term spread of SBV, farms in current disease free areas would be wise to protect themselves by considering carefully the purchase of stock from endemic areas. Pre-purchase testing of animals for antibody may be useful, and those with a clear positive antibody response may in fact be safe to purchase. Purchase of antibody negative stock from herds where there is a mix of antibody positive and negative animals while midges are active is more risky and as a minimum it would be wise to quarantine such animals on arrival and test after 28 days for sero-conversion.

Biobest can test both serum (introductory £6 per sample) and bulk or individual milk samples (£10 per sample) for antibodies to SBV. Antibody tests can be useful to assist clinical diagnosis, and paired serology may provide a definitive diagnosis.