



## OPA Scanning

Full and Refresher OPA scanning courses with Phil Scott, 27 & 28<sup>th</sup> September 2022. Email [enquiries@wvsc.wales](mailto:enquiries@wvsc.wales) to book your place.

**Salmonella Typhimurium** was confirmed in a six-day-old calf. The cow was slow to calve, and the calf was put on the cow to suckle after about five hours as it did not suckle initially. The calf developed heavy breathing and a temperature of 39-40°C. It was given antibiotics but did not respond and developed neurological signs before death. Five calves had been ill, and one died in this herd of 55 Charolais cows. *Salmonella typhimurium* 104 had been diagnosed previously in the sheep flock. Post-mortem examination of the calf revealed navel ill and peritonitis (Figure 1). ZST also revealed a **relative failure of colostrum absorption**. Advice was given that large-breed calves can be slow to rise after calving and it is important to ensure colostrum is given promptly. A review of the new-born calf management and hygiene was advised as part of the herd health plan review.

Figure 1. Excess of peritoneal fluid & fibrin deposits associated with *Salmonella Typhimurium* infection.



**Enterotoxigenic *E. coli* K99 (ETEC) and cryptosporidiosis** were identified in a two-day-old calf with diarrhoea. Two calves out of seven had died from a group of 50 suckler cows. Both affected calves were born inside and then were turned out the following day. The first calf had watery diarrhoea and the second calf submitted for examination looked ill and was thought possibly to have diarrhoea. Both calves died at two days of age. An enteritis with watery intestinal contents and dehydration were visible post-

mortem. Given the young age of the calf, the finding of *E. coli* K99 was thought to be the most significant. The disease affects calves up to five days of age where there is sudden onset profuse diarrhoea causing severe and rapid dehydration. Recumbency and death follow. The infection is often present in a contaminated calving environment and infects new-born calves. A vaccine is available in combination with rotavirus and coronavirus and can be given to dams to pass immunity on through colostrum if the datasheet is followed. Protection of the calves is through receiving adequate good quality colostrum within a few hours of life, calving in a clean environment, and being given a clean environment for the first few days of life.

**BVDV type 1** was identified in a four-week-old lamb that had been exhibiting tremors. A lower-than-normal scanning percentage was found on this farm. The percentage quoted by the scanner was 151%, compared with an expected percentage of 180 to 190%. The farm is a small farm of 50 ewes with one Easycare ram purchased in 2021. The ewes were housed in a shed in which the other half houses the suckler cows and followers. During the Gwaredu BVD testing a PI calf has been identified and is still on farm. Lambing didn't go well, with many abortions and many lambs born small and dying within 24 hours of birth. It is therefore highly likely that the PI calf was the source of infection. Although most cases of 'hairy shakers' are caused by Border disease virus, around 20% are due to BVDV type 1.

## Sheep Meets

5<sup>th</sup> October at WVSC. An afternoon of sheep related cases organised by the Sheep Vet Society and sponsored by CEVA. Email us to book your food.

**Three incidents of tick related disease** were confirmed in May. **Tick pyaemia** was diagnosed in a two-month-old lamb. Six lambs had been found dead on rough grazing and had been treated for ticks three weeks previously. Post-mortem examination revealed a septicaemic carcass with enlargement of lymph nodes and spleen, pinpoint haemorrhages on the liver and multiple small foci of lung consolidation (Figure 2). A pure growth of *Staphylococcus aureus* was isolated from the lung. *Anaplasma phagocytophilum*, the causative agent of tick-borne fever (TBF) was identified by PCR in spleen. Histopathology showed changes with a peracute-acute systemic bacterial infection. It is likely that TBF had suppressed immunity leading to *S.aureus* septicaemia (tick pyaemia).



Figure 2. Lung lesions in a lamb with tick pyaemia

**Louping ill** was diagnosed in lambs aged 10-14 days. Three lambs were submitted, two that had been euthanased and one that was found dead. Affected lambs were between seven and 14 days of age and had been showing neurological signs. The ewes are overwintered in a known tick-infected area. Histopathology on brain showed severe, multifocal, acute, non-suppurative polioencephalomyelitis highly suggestive of louping virus (LIV) infection. LIV was confirmed by immunohistochemistry.

**Tick-borne fever** was also diagnosed in a three-to-five-week-old lamb in May. Ewes were vaccinated following the correct protocol for Heptavac-P in this flock but this lamb was the sixth in the flock to die after showing severe respiratory signs. No bacterial agent could be identified in the lamb submitted, but it had gross and histological lung changes characteristic of atypical or enzootic pneumonia, caused by a pathogen like *Mannheimia haemolytica*. PCR on spleen tissue confirmed the presence of *Anaplasma phagocytophilum*. As for the case of tick pyaemia, a Pasteurella type pneumonia has probably resulted from immunosuppression combined with waning of maternal antibodies.

AberTB Conference

Wednesday 14<sup>th</sup> September 2022 at Aberystwyth University. [Book here](#)

**The severe immunosuppressive effects of BVD** infection are sometimes forgotten by farmers. A two-month-old beef suckler calf was submitted to us after being found dead.

Figure 3. Abomasal ulcer in BVD positive calf.



The immediate cause of death was a perforated abomasal ulcer and resulting peritonitis, but the lungs showed multifocal caseonecrotic lesions and chronic airway changes. The animal had shown signs of respiratory disease from three weeks of age which would respond positively to tilmicosin administration but always recur. *Mycoplasma dispar* was found on bacteriology and these findings explained the history. However, in addition, BVD antigen testing was positive. It is unknown whether the calf was a persistently or transiently infected animal but both scenarios would explain the severity of the symptoms and the presence of a gastrointestinal ulcer. This is a reminder that BVD should always be considered as a differential in cases of pneumonia in bovine youngstock.

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Please check the eligibility for **free carcass collection** via this website:

<http://apha.defra.gov.uk/postcode/pme.asp>

The suitability of submissions for a postmortem exam. must always be discussed with the WVSC duty vet.