Canolfan Milfeddygaeth Cymru
Wales Veterinary Science Centre
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NEWSLETTER CYLCHLYTHYR

'OAK' TOBER NEWSLETTER

Anaplasma phagocytophilum infection

Three adult ewes were submitted from a flock of 800 Welsh mules where 15 ewes had died. Previously Ovine Pulmonary Adenocarcinoma (OPA) and Johne's disease had been diagnosed. Ewes in the affected group had lost weight since lambing and lambs had been weaned three weeks prior to submission. In addition to weight loss the worst affected ewes also became depressed and recumbent and had diarrhoea.

Investigation by the submitting vet had revealed a very high worm burden prompting initial suspicions of *Haemonchus contortus.*

Body condition of the submitted ewes ranged from poor to emaciated. Postmortem findings included a single dead tick on one ewe, visible live worms in the caecal contents, an increased volume of free abdominal fluid, subcutaneous oedema, pericardial effusion, splenomegaly and generalised lymphadenopathy.

One of the submitted ewes had a faecal worm egg count (WEC) of over 18,000epg, however no worms with the typical "barber's pole" appearance of *H. contortus* were noted in the abomasum of any submitted carcasses. Differential fluorescent egg staining only identified 1% of the sample as Haemonchus eggs, ruling out Haemonchosis in this case.

Sallmonellosis and Johnes disease were also ruled out. *Mycoplasma ovipneumoniae* and *Mycoplasma arginine* were found by PCR testing of lung tissue but were not thought to be contributing significantly to the clinical condition of the flock.

Tick borne fever (TBF) was confirmed by PCR of the spleen. TBF is caused the bacterium *Anaplasma phagocytophilum* and is transmitted by ticks and results in immunosuppression, tick pyaemia, respiratory infections and abortion. There is no specific treatment for TBF although sick ewes can be treated with antimicrobials. If possible, the best prevention is to move them to alternative grazing where there are fewer ticks present or putting immune ewes that have been on the pasture before back on the same pasture. Tick prevention treatments for sheep include organophosphate diazinon plunge dipping or topical synthetic pyrethroids, please check the latest data sheet. Shearing before applying topical treatment will allow better penetration. There is no vaccine available but sheep who routinely get exposed develop immunity over time.

Moredun research institute have useful booklets you can pass on to clients at https://www.moredun.org.uk/research/diseases/ticks-tickborne-diseases. When advising clients it is also important to remember that ticks carry zoonotic diseases including Louping ill and Lyme Disease. (https://111.wales.nhs.uk/encyclopaedia/l/article/lymedisease).

Save the Date! Vets Cymru is returning next year on the 2nd and 3rd of July 2026

It was concluded in this case that the subsequent immunosuppression following infection with TBF was resulting in high WEC's and opportunistic *Mycoplasma spp* infection.

Urolithiasis

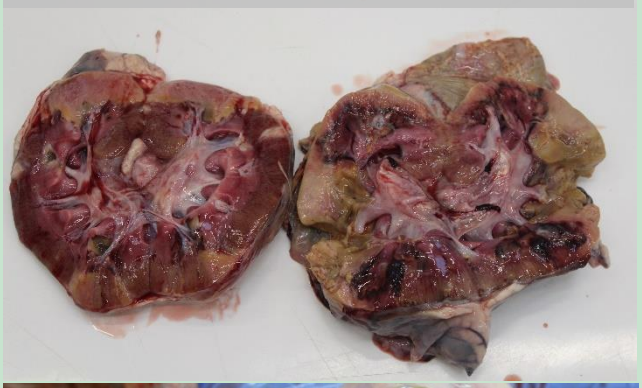
A yearling Aberfield ram exhibited symptoms including recumbency and severe dyspnoea. He improved initially after treatment with antibiotics and non-steroidal anti-inflammatories but deteriorated over a period of two weeks and was submitted for PME after being found dead in the field.

Postmortem examination revealed some spectacular pathology including oesophageal ulceration, peritonitis, necrotic areas of kidney and bilaterally dilated renal pelves (see fig.1), a full bladder with

areas of necrosis on the serosal and epithelial surfaces (fig.2), necrotic tracts of tissue within the prepuce and between one and two litres of urine within the left retroperitoneal space.

Rupture of the urethra and left ureter was diagnosed, likely secondary to an obstruction with a urolith, resulting in renal failure, sterile peritonitis and severe electrolyte abnormalities which was fatal in this case.

Figure 1. Left and right kidney



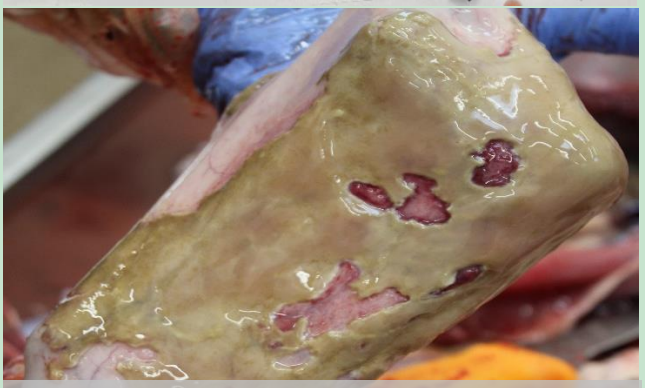


Figure 2. Bladder epithelium

Acorn toxicity

This year is a “mast year”. This occurs every few years when, due to weather conditions, trees have a particularly large crop of seeds and nuts, including oak trees. Green acorns are most toxic; phenols, tannins and their metabolites bind and precipitate proteins leading to renal failure. Acorn toxicity has been diagnosed as the primary cause of death or a concurrent finding in 25% of our submissions from mid-September through to the end of October.

A suckler calf was submitted having been examined by a private vet 48 hours previously. Dyspnoea, depression and hypothermia were reported as the main clinical signs. The calf was treated for pneumonia and acorn poisoning but later died.

Post-mortem findings included widespread petechial haemorrhages throughout the carcass, five litres of serosanguineous peritoneal fluid and ten litres of pleural effusion. The kidneys were bilaterally mottled on their capsule and dark and congested on the cut surface. The medulla of both contained blood clots.

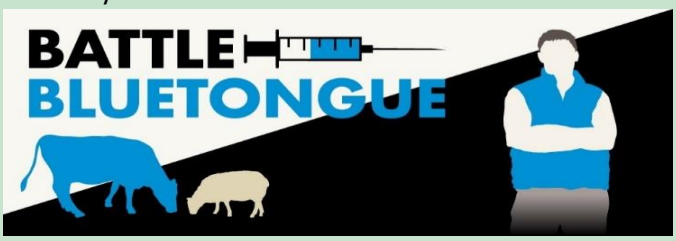
The urea levels in the aqueous humour were elevated at 100.2mmol/L (2.0-6.6mmol/L). Acute multi-organ failure due to acorn toxicity was the cause of death in this case.

We are currently planning our CPD portfolio for 2026 so watch this space for more information on upcoming courses!

Our free online CPD club is ongoing and our next talk on ruminant Toxicology is scheduled for 11.12.25.

Bluetongue

With the colder months upon us we will be entering a ‘low vector period’ for Bluetongue virus (BTV). This is likely to come with fewer rules regarding animal movements. Risk of disease spread remains, however, especially for sheep moving to the warmer climates in the south of England for winter keep. Vaccination remains the best option for limiting morbidity and mortality of stock.



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Please check the eligibility for **free carcase 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.