REGIONAL VETERINARY LABORATORIES REPORT

November 2025

Regional Veterinary Laboratories (RVLs) carried out necropsy examinations on 968 carcases and 195 foetuses during November 2025. Additionally, 2,186 diagnostic samples were tested to assist private veterinary practitioners with the diagnosis and control of disease in food producing animals. This report describes a selection of cases investigated by the Department of Agriculture, Food and the Marine's (DAFM) veterinary laboratories in November 2025.
The objective of this report is to provide feedback to veterinary practitioners on the pattern of disease syndromes at this time of the year by describing common and highlighting unusual cases. Moreover, we aim to assist with future diagnoses, encourage thorough investigations of clinical cases, highlight available laboratory diagnostic tools, and provide a better context for practitioners when interpreting laboratory reports.

Cattle

Pneumonia and enteritis were the most common diagnoses at necropsy in cattle in the RVLs during November 2025.

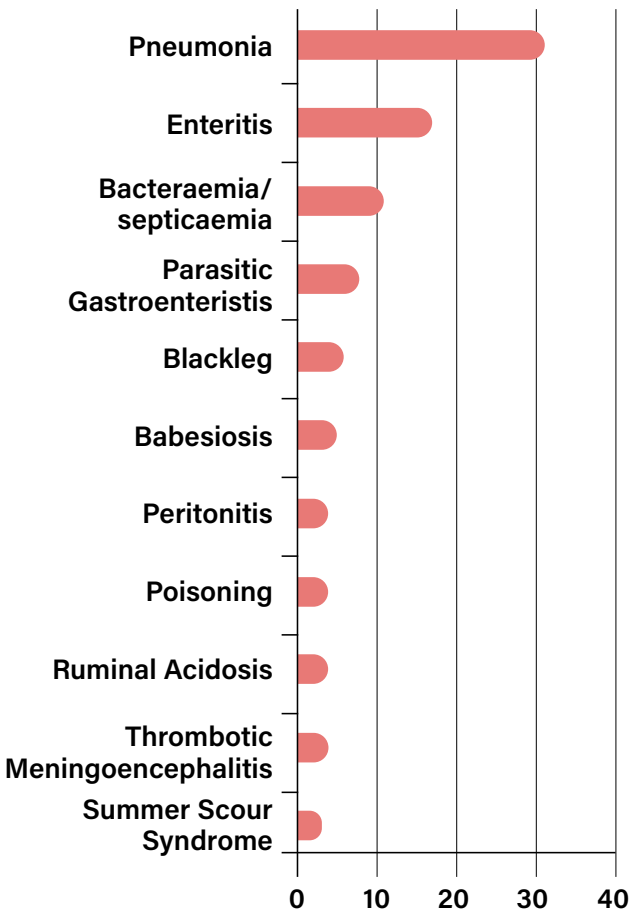

Table 1: **The most common diagnoses in cattle submitted for necropsy in November 2025.**

Gastrointestinal Tract

Mesenteric hernia

A bull was submitted to Kilkenny RVL with a history of suspected digestive system problems. There had been no response to antibiotic treatment. On necropsy, there was a marked peritonitis. An approximately 30cm length of small intestine had herniated through the epiploic foramen in the mesentery. The entrapped section of intestine appeared necrotic, and the walls were very friable. The abomasum was dilated and partially displaced. Mesenteric hernias can be congenital or may be spontaneous or traumatically induced.

Figure 1: **Small intestine herniated through the mesentery. Photo: Aideen Kennedy.**

Perforated and haemorrhagic abomasal ulcer

Athlone RVL examined a three-year-old cow with a history of receiving treatment for abdominal pain, but showing no improvement before it died. The mucous membranes were pale and, on opening the abdomen, there were blood clots and a large volume of blood and brown fluid free in the abdominal cavity, and there was brown ingesta on the serosa of the forestomachs and intestines. There was a 2-3cm diameter perforation on the abomasal wall and the abomasal mucosa was hyperaemic with multifocal ulcers throughout the mucosa. Faeces were loose and dark brown-to-black. Liver, kidneys, and lungs were pale. A conclusion of a bleeding abomasal ulcer and subsequent abomasal perforation was made.

Figure 2: **Perforated and haemorrhagic abomasal ulcer. Photo: Denise Murphy.**

Johne's disease

A three-year-old cow with a history of weight loss was submitted to Kilkenny RVL. There was thickening and corrugation of the ileum, with very fluid intestinal contents. These findings were suggestive of Johne's disease and *Mycobacterium avium* subspecies *paratuberculosis* (MAP) culture results are pending.

Figure 3: **Thickening and corrugation of the ileum suggestive of Johne's disease. Photo: Aideen Kennedy.**

Respiratory Tract

Pneumonia

Athlone RVL examined an eight-month-old weanling with a history of sudden death. The carcase preservation was poor. There was bilateral, anteroventral, pulmonary consolidation extending into the caudal lobes with mild subpleural emphysema. No lungworms were seen. The liver and spleen were enlarged. *Mannheimia haemolytica* was isolated from the lung by culture and was also detected by polymerase chain reaction (PCR) along with *Pasteurella multocida* and parainfluenza 3 (PI3) virus. *Anaplasma phagocytophilum*, the causative agent of tick-borne fever (TBF), was detected by PCR. TBF causes profound immunosuppression and increases susceptibility to other infections.

Figure 4: **Bilateral, anteroventral, pulmonary consolidation, *Mannheimia haemolytica* was isolated from the lung. Photo: Denise Murphy.**

Urinary/Reproductive Tract

Leptospirosis

A two-week-old calf was submitted to Kilkenny RVL. The farmer was concerned about low mineral status in the herd of origin, as some stillbirths had occurred. On examination, the carcase was diffusely jaundiced. The liver was rounded. There was suspected haemoglobinuria. Zinc sulphate turbidity (ZST) results were <12 indicating a failure of passive transfer of colostral immunity. PCR positive results for pathogenic *Leptospira* spp were obtained. Leptospirosis is a potential zoonosis. Minimising the exposure of susceptible animals to wildlife, rodents, and contaminated water sources, along with vaccination, aids control of this disease in cattle.

Figure 5: **A diffusely jaundiced calf carcase in a case of leptospirosis. Photo: Aideen Kennedy.**

Cardiovascular System

Myocarditis

A bovine yearling was submitted to Kilkenny RVL for necropsy with a history of being "off form" and not responding to treatment. On gross examination of the heart, there were areas of necrosis and abscessation in the ventricular wall; in addition, there was a mild bronchopneumonia. *Histophilus somni* was cultured from multiple organs including the heart. *H. somni* causes septicaemic infection with clinical presentations, including pneumonia, polyarthritis, myocarditis, abortion, and meningoencephalitis. The reason for cardiac localisation of the organisms in outbreaks of histophilosis is unclear. The involvement of papillary muscles of the left ventricular myocardium is a distinctive feature.

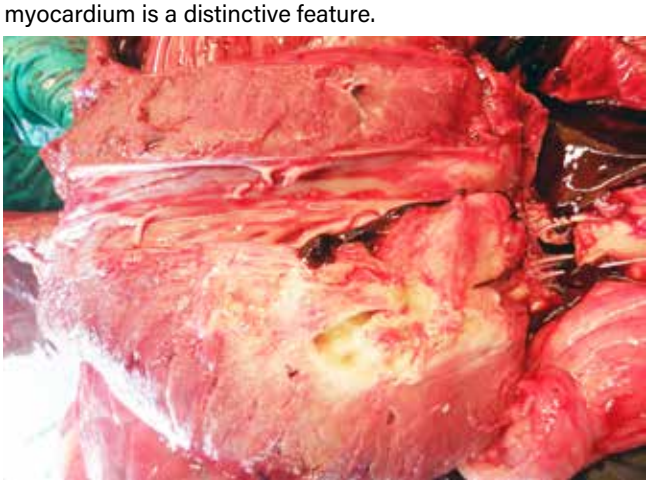

Figure 6: **Necrosis and abscessation in the ventricular wall of a yearling's heart. Photo: Aideen Kennedy.**

Babesiosis
Athlone RVL examined a two-year-old pregnant heifer with a history of sudden onset haemoglobinuria, which had been treated with a blood transfusion and had died. It was the second similar case. The carcase was mildly jaundiced, with mild liver and renal jaundice. The ruminal contents were dry and the faeces were normal. The spleen was markedly enlarged and congested and there were ecchymotic haemorrhages on the epicardial and endocardial surfaces of the heart. Moderate pulmonary congestion and oedema was present. The urinary bladder was empty, but a dirty brown residue was evident. The hepatic copper concentrations were below the normal range. There was a strong positive *Babesia divergens* PCR result. There was also a positive PCR for tick-borne fever (TBF). As stated above previously, TBF can cause a profound immunosuppression and increase the animal's susceptibility to other infections and/or the severity of any co-infections. A conclusion of babesiosis and tick-borne fever infection was made. Naive animals brought into an endemic area or a high-risk grazing area, i.e., under-grazed and rough pastures which are favourable tick habitats, are at a high risk of babesiosis. Pregnant cows and animals without previous exposure to redwater parasites tend to be more severely affected.

Nervous System

Figure 7: **Opacity in the meninges of a weanling, indicating meningitis. Photo: Aoife Coleman.**

Meningoencephalitis
Athlone RVL examined a seven-month-old weanling with history of acute onset neurological signs. Necropsy disclosed opacity in meninges and around the spinal cord with fibrinopurulent appearance, pallor, and haemorrhage noted in the right-side papillary muscle, with multifocal areas of haemorrhage throughout brain sections, especially in the basal ganglia. There was a positive result for bovine respiratory syncytial virus (BRSV) on PCR and a *H. somni* PCR positive on brain and lung tissue. Histopathology disclosed a severe, acute, multifocal-to-coalescing, fibrinosuppurative meningitis with neutrophils, histiocytes and intralesional bacterial colonies; ventriculitis, multifocal thrombi and vasculitis with perivascular cuffing were also evident. Multifocal areas of necrosis in basal ganglia showed vascular changes as previously described with haemorrhage. Myocardial necrosis, with haemorrhage, vasculitis, thrombosis, neutrophilic infiltration, and oedema was also observed. A diagnosis of meningoencephalitis was made. Infection of cattle with *H. somni* can result in a number of diseases: septicaemia, thrombotic meningoencephalitis (TEME), polysynovitis, pleuritis, suppurative bronchopneumonia, myocarditis, otitis media, mastitis, and reproductive tract disease. *H. somni* is a major pathogen worldwide. Cattle that develop TEME are initially described as uncoordinated, having a "drunk" appearance, with ataxia progressing to sternal recumbency, profound depression, and lack of awareness of their surroundings. Cardiac failure due to myocarditis is another possible sequel to *H. somni* infection.

Figure 8: **Haemorrhage in the basal ganglia in a case of thrombotic meningoencephalitis in a weanling. Photo: Aoife Coleman.**

Miscellaneous

Extra-skeletal chondrosarcoma
Athlone RVL examined an 18-year-old bullock with a history of ill-thrift for six weeks. A large mass occupied the abdominal cavity and had a haemorrhagic/cavitated core. There were miliary varying-sized masses along the mesentery, omentum, and fascia, and along the curvature of the forestomachs. This tumour was 120kg approximately in weight. There were severe and firm adhesions throughout the mass, encompassing the abdominal viscera.

Figure 9: **A large mass occupying the abdominal cavity of a bullock, 120kg approximately in weight. Photo: Aoife Coleman.**

Histopathology found an expansile, unencapsulated mass comprised of bundles and whorls of cells with large variably-sized round to elongated nuclei with pale, stippled chromatin with two to three variably distinct nucleoli. The cell borders were indistinct with moderate amounts of cytoplasm.

There was moderate anisocytosis and anisokaryosis, and, in some areas, the cells were well-differentiated and formed cartilaginous islands. There was a moderate fibrovascular stroma. The mitotic index was 2-3 per high-powered microscopy field. There were areas of necrosis and inflammation. A likely diagnosis of extra-skeletal chondrosarcoma was reached.

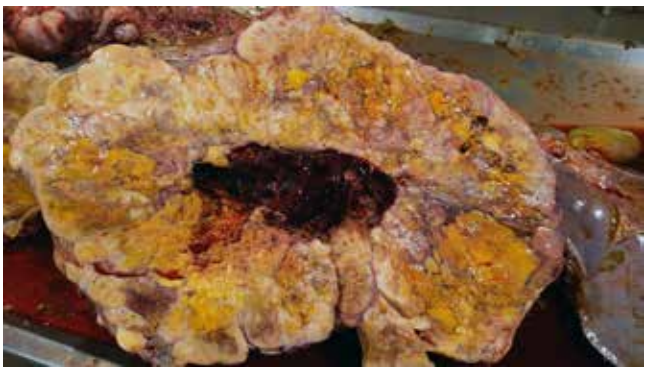

Figure 10: **The haemorrhagic/cavitated core of a suspected extra-skeletal chondrosarcoma. Photo: Aoife Coleman.**

Sheep

Bacteraemia/septicaemia and parasitic gastroenteritis were the most common diagnoses at necropsy in sheep in the RVLs during November 2025.

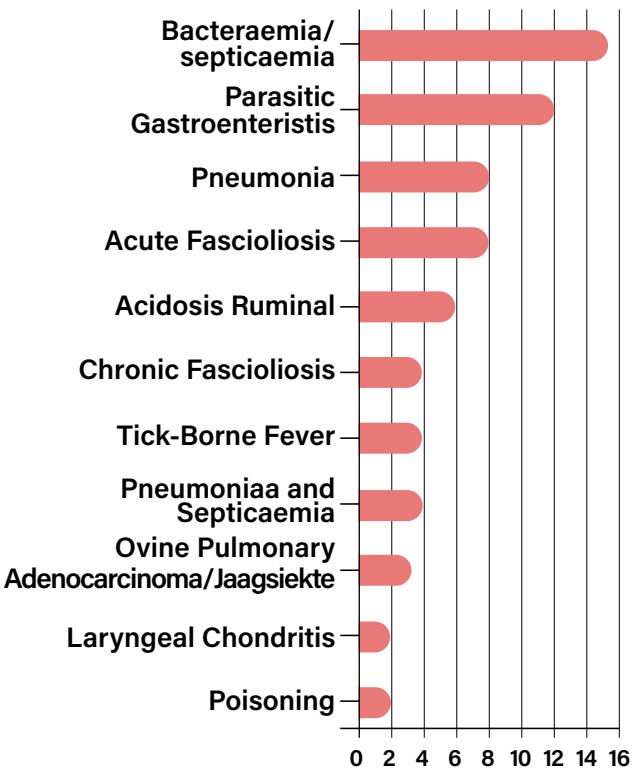

Table 2: **The most common diagnoses in sheep submitted for necropsy in November 2025.**

Respiratory Tract

Systemic pasteurellosis

Two six-month-old lambs were found dead and submitted to Kilkenny RVL. The lungs were congested and oedematous in both, with focal areas of consolidation. There was an oesophagitis in one lamb. Intestinal contents were liquid. *Bibersteinia trehalosi* was cultured from multiple organs indicating a bacteraemia. Systemic *B. trehalosi* infections typically affect six- to nine-month-old lambs, with outbreaks usually occurring between October and December, although infections can also be seen in adult animals. Control is best achieved by vaccination; however, parasitic gastroenteritis, stress, and nutrition issues can cause animals to become susceptible despite appropriate vaccination. Very high strongyle counts were recorded from one lamb , exceeding 17,000 eggs per gram (EPG), and a review of parasite control was also advised.

Figure 11: **Congested and oedematous lungs, with focal areas of consolidation, in a lamb. Photo: Aideen Kennedy.**