

REGIONAL VETERINARY LABORATORIES REPORT

June 2026

Regional Veterinary Laboratories (RVLs) carried out necropsy examinations on 496 carcasses and 26 fetuses during June 2026. Additionally, 1,120 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 June 2026.

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, intestinal torsion/volvulus, and enteritis were the most common diagnoses at necropsy in cattle in the RVLs during June 2026.

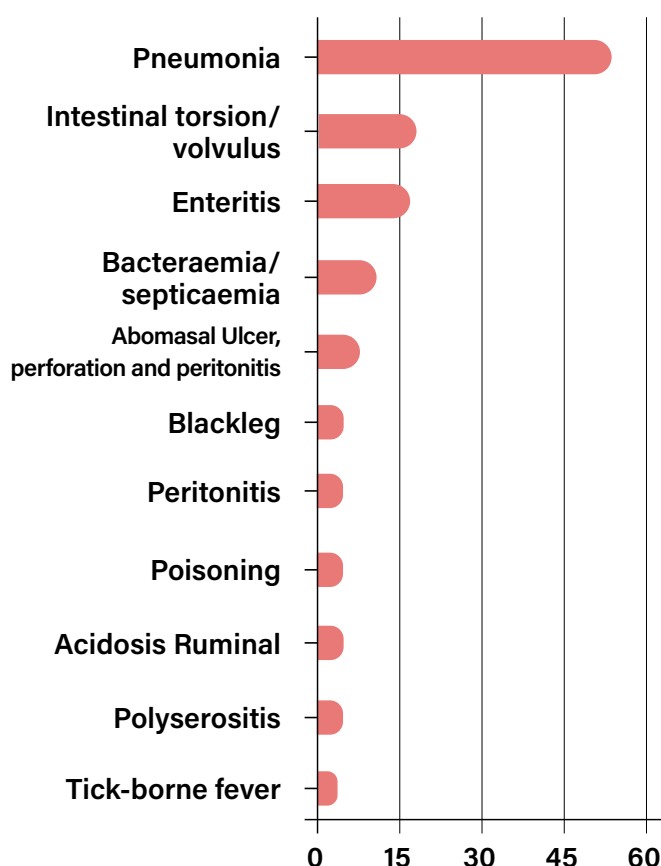


Table 1: The most common diagnoses in cattle submitted for necropsy in June 2026.

Gastrointestinal Tract

Peritonitis secondary to a perforated abomasum

A three-month-old calf was submitted to Kilkenny Regional Veterinary Laboratory (RVL) following a history of sudden death. On post-mortem examination, there was severe, diffuse, peritonitis secondary to a perforated abomasum. The abomasal wall was markedly oedematous and hyperaemic, with multifocal areas of emphysema. The rumen contents were porridge-like, although the ruminal pH was within normal limits. Histopathological examination demonstrated abundant *Sarcina* spp. in the abomasal mucosa.

Sarcina spp. have been associated with emphysematous and oedematous changes of the abomasal wall, mucosal hyperaemia, haemorrhage, and abomasal perforation in calves. Proliferation of these organisms is thought to occur in association with delayed gastric emptying and excessive fermentable carbohydrates within the abomasum. To reduce the risk of exposure, good hygiene practices should be followed when preparing milk feeds.



Figure 1: Perforated abomasal ulcer. Photo: Aideen Kennedy.

Cardiovascular System

Hepatic abscess associated with ruminal acidosis

A one-and-a-half-year-old heifer was found dead and submitted to Kilkenny RVL. The carcass was markedly autolysed which limits the post-mortem examination. However, there was a large hepatic abscess adjacent to the caudal vena cava. A second abscess involving the ventricular septum of the heart was also identified, most likely caused by bacterial emboli. Bacterial culture results were unrewarding. The ruminal pH was acidotic. Liver abscesses in cattle are most commonly associated with ruminal acidosis and subsequent rumenitis, allowing the bacteria to enter the portal circulation and establish hepatic infection. Less common routes include haematogenous spread associated with neonatal omphalitis or other infectious foci.



Figure 2: Cross section of the liver showing a large, well-demarcated abscess. Photo: Aideen Kennedy.

Visceral blackleg

A two-and-a-half-year-old heifer was presented to Athlone RVL for post-mortem examination having been found dead. The animal had calved in the preceding few days. Necropsy disclosed a severe, florid, fibrinous pericarditis with marked pericardial effusion and a focally-extensive fibrinous pleuritis. A fluorescent antibody test (FAT) performed on cardiac tissue was positive for *Clostridium chauvoei*. A diagnosis of visceral blackleg (clostridial myositis) was made.

Although blackleg classically affects skeletal muscle, myocarditis without concurrent lesions in skeletal muscle is reported in both cattle and sheep. *C. chauvoei* spores are widely distributed in soil and may enter the body through ingestion or contamination of wounds. Dormant spores can localise within muscle tissue and become activated following tissue damage or due to local anaerobic conditions. Muscle trauma could occur due to several reasons including: mounting behaviours; or injuries sustained at handling; or at feed barriers.

Outbreaks of blackleg have been associated with activities that increase exposure to soil such as land drainage, road construction, and exposure of earth floors during mucking out. To reduce the risk of disease, vaccination with a multivalent clostridial vaccine is recommended in accordance with manufacturers' guidelines. When cases occur, investigations should include identifying potential sources of soil contamination and any factors that may have caused muscle trauma.



Figure 3: Fibrinous myocarditis in a case of clostridial myositis. Photo: Aoife Coleman.

Atrial septal defect

A three-month-old Limousin calf was submitted to Athlone RVL with a seven-day history of respiratory distress. The referring veterinarian suspected a congenital cardiac issue. On gross post-mortem examination, there was marked ascites. The liver had diffusely rounded edges and a characteristic 'nutmeg' appearance on cross section, consistent with chronic passive congestion. The heart was markedly enlarged, and a large atrial septal defect (ASD) was identified. Based on findings, a diagnosis of atrial septal defect with secondary congestive heart failure was made. Atrial septal defects are among the more common congenital cardiac anomalies in calves. Large defects permit left-to-right shunting of blood, resulting in volume overload of the right heart, progressive cardiac enlargement, and in advanced cases, right-sided congestive heart failure.

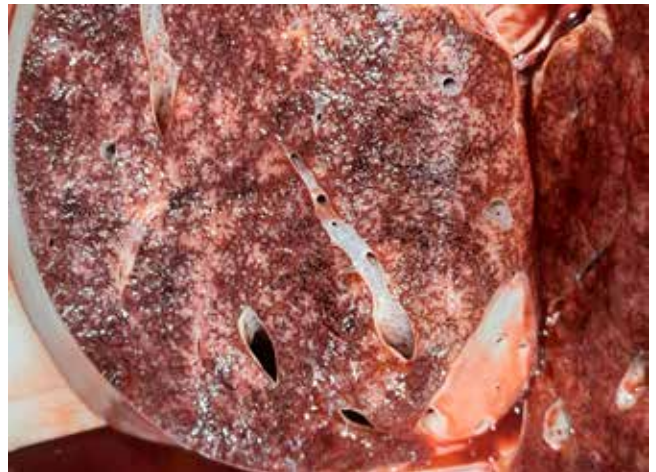


Figure 4: Liver with a 'nutmeg' appearance. Photo: Denise Murphy.

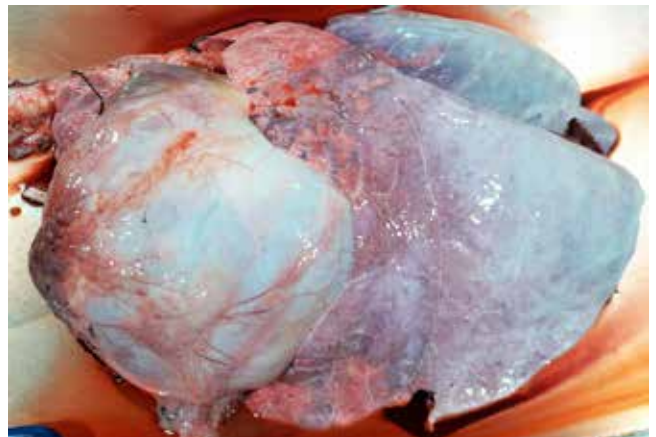


Figure 5: Markedly enlarged, globoid heart secondary to a congenital atrial septal defect. Photo: Denise Murphy.

Traumatic reticulopericarditis

Kilkenny RVL examined a seventeen-month-old bull that was euthanised on welfare grounds following a one-week history of illness, having become recumbent with expiratory grunting. This was the second suspected case of traumatic pericarditis on the holding within a few months.

On necropsy, there was severe, haemorrhagic pleural effusion. The right lung was completely collapsed and firmly adhered to the costal pleura by chronic, severe, fibrinopurulent pleuritis. The pericardial sac was markedly distended with malodorous fluid and abundant fibrinosuppurative exudate, giving the characteristic 'bread

and butter' appearance of fibrinous pericarditis. A thin metallic wire approximately 12cm in length penetrated the myocardium and protruded from the epicardial surface. The liver was severely enlarged with rounded edges, diffuse orange discoloration, a mild nutmeg pattern, and multifocal abscesses.

A diagnosis of traumatic reticulopericarditis (hardware disease) was made.



Figure 6: A thin metallic wire (12cm in length) can be seen penetrating the myocardium and protruding from the epicardial surface. Photo: Sara Salgado.



Figure 7: Severe fibrinous pleuritis. Photo: Sara Salgado.

Babesiosis

Sligo RVL examined a sixteen-month-old heifer that was found dead in a field. The carcass had been partially scavenged. On post-mortem examination, there was generalised pallor, icterus, and dehydration. Numerous ticks were attached to the skin. The spleen was markedly enlarged with liquefaction of the parenchyma. The renal cortices were dark red to gunmetal-black, consistent with haemoglobinuric nephrosis. Haemoglobinuria was suspected based on gross findings; however, confirmation was not

possible as the urinary bladder had been scavenged. PCR detected DNA of *Babesia divergens* (redwater), confirming the diagnosis. *Anaplasma phagocytophilum* which causes tick-borne fever (TBF) was also detected by PCR. TBF and babesiosis are found frequently as coinfections as they are both tick-borne diseases transmitted by the same tick vector. In Ireland, *Ixodes ricinus* also known as the castor bean tick is the predominant tick species. The severity of clinical signs following infection depends on the level of tick exposure and the immune status of the animal. Outbreaks most frequently occur when immunologically naive animals are introduced into areas where there are suitable tick habitats, where the ticks are infected, and when climatic conditions promote tick feeding behaviours.

Nervous System

Cerebrocortical necrosis

Athlone RVL examined a four-month-old calf with a history of blindness that had been treated with Vitamin B and antibiotics without clinical improvement. The calf died two days later. On post-mortem examination, there was yellow discoloration and flattening of the cerebral gyri, with cerebellar herniation through the foramen magnum, consistent with severe cerebral oedema. The cerebral cortex showed autofluorescence under ultraviolet (UV) light. Kidney lead concentrations were within normal limits. Histopathology of brain showed laminar neuronal necrosis of deeper layers of the cerebral grey matter. A diagnosis of cerebrocortical necrosis (CCN) was made. CCN is most commonly associated with diets deficient in thiamine or with excessive dietary sulphur intake, although other causes are also reported. Outbreaks frequently occur in animals grazing lush pasture. Further information regarding the diet of the animals, recent applications of fertiliser, or other clinical findings are useful to assist in determining the cause of an outbreak.



Figure 8: The cerebral cortex showing autofluorescence under UV light. Photo: Denise Murphy.

Miscellaneous

Chronic omphalitis with secondary bacteraemia

A two-month-old calf was submitted to Kilkenny RVL with a history of failure to thrive. Necropsy revealed a discharging umbilical abscess and chronic bronchopneumonia affecting approximately 30 to 40 per cent of the lungs, with multifocal pulmonary abscessation. *Trueperella pyogenes* was cultured

from multiple organs. A diagnosis of chronic omphalitis with secondary bacteraemia was made.



Figure 9: Chronic discharging umbilical abscess in a two-month-old calf. Photo: Aideen Kennedy.



Figure 10: Severe cranioventral bronchopneumonia with multifocal areas of abscessation. Photo: Aideen Kennedy.

Sheep

Parasitic gastroenteritis, pneumonia and intestinal torsion/volvulus were the most common diagnoses at necropsy in sheep in the RVLs during June 2026.

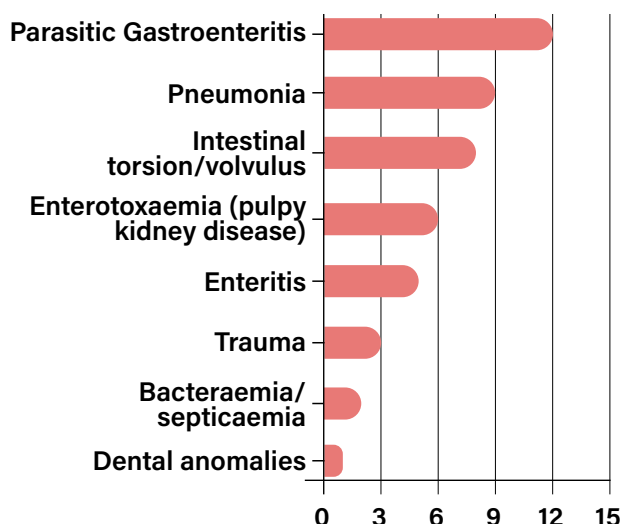


Table 2: The most common diagnoses in sheep submitted for necropsy in June 2026.

Gastrointestinal Tract

Haemonchosis

A three-year-old ewe was submitted to Sligo RVL after a sudden death. Post-mortem findings included moderate submandibular oedema, white mucous membranes, moderate ascites and an overall pallor to the internal organs, indicating anaemia. There were large numbers of adult *Haemonchus contortus* nematodes in the abomasum. The ewe had a strongyle count of 35,000 eggs per gram.



Figure 11: Large numbers of adult *Haemonchus contortus* nematodes (Barber's Pole Worm) from the abomasum of a ewe. Photo: Fiona Kane.

Athlone RVL examined two adult ewes that were found dead. Clinical findings were similar in both animals. Gross post-mortem examination showed pallor of the conjunctivae, lungs, and liver, indicating severe anaemia. Ascites and pericardial effusion were present, along with severe oedema of the abomasal rugal folds. The abomasum contained blood-tinged brown fluid with numerous, fine, thread-like worms. Intestinal contents were watery and voluminous. The abomasal worms were identified as *H. contortus*. A diagnosis of haemonchosis was made. Haemonchosis can occur in both adults and in young sheep. It causes severe blood loss, resulting in anaemia, hypoproteinaemia, and subsequent oedema. Examination of cohorts for signs of anaemia using the FAMACHA system and a review of parasite control was recommended.

Each adult *H. contortus* worm removes about 0.05ml of blood daily from its host; consequently, a burden of 2,000 worms may result in a daily blood loss of approximately 100ml. Adult females are highly fecund and can produce up to 10,000 eggs per day.

Urinary/Reproductive Tract

Mastitis

A ewe was submitted to Kilkenny RVL. She had become inappetent and an abnormal gait was noted the evening prior to death. On post-mortem examination, she had severe mastitis, pulmonary congestion, and petechiation of the spleen. *Staphylococcus aureus* and *Bibersteinia trehalosi* were cultured from multiple organs, consistent with septicaemia. *S. aureus* is a major cause of ovine mastitis and may present as peracute, acute, subacute, or chronic subclinical disease. *B. trehalosi* is a commensal of the upper airway tract of sheep and can cause systemic pasteurellosis or septicaemia when animals are subjected to stress or concurrent disease.



Figure 12: Severe suppurative mastitis with multifocal coalescing abscesses and necrosis of the mammary gland in a ewe. Photo: Aideen Kennedy.

Pyelonephritis

Athlone RVL examined a two-month-old ewe lamb with a history of sudden death. Post-mortem examination revealed severe, bilateral, suppurative pyelonephritis. The renal cortices contained numerous, yellow-white, necrotic foci. The renal pelvis was distended with fetid purulent content. The urinary bladder contained gelatinous purulent material. *Streptococcus ovis* was cultured from kidneys and urinary bladder. The lesions observed are likely to have originated from an ascending bacterial urinary tract infection. A strong ammonia odour from the carcass suggested uraemia secondary to a renal failure.

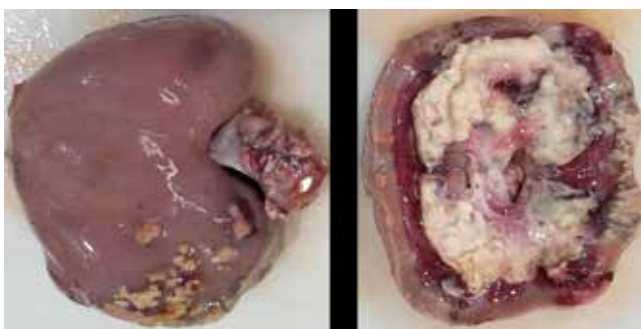


Figure 13: Multifocal to coalescing, yellow-white necrotic foci on the renal cortex of a ewe lamb (left) and severe pyelonephritis observed on incision (right). Photo: Aoife Coleman.



Figure 14: A case of cystitis in a ewe lamb. Photo: Aoife Coleman.

Musculo-skeletal

Clostridial myositis

Sligo RVL examined a two-year-old ewe who was found dead with no preceding history of clinical signs. The ewe was dehydrated and markedly autolysed. On post-mortem examination, there was focally-extensive, necrotising myositis affecting the dorsolumbar musculature. The affected muscle was dark red to black and exuded a characteristic sweet, rancid odour upon incision. *C. chauvoei* was demonstrated in the lesions by PCR technique, confirming a diagnosis of blackleg.

Poisonings

Copper toxicity

Limerick RVL examined a four-month-old, Hereford-cross, dairy calf that died following a poor response to treatment for constipation.

Post-mortem examination revealed generalised icterus, including an orange discoloration of the liver, and a urinary bladder which was distended with dark red urine (haemoglobinuria). Hepatic copper concentrations were markedly elevated. Histopathological examination of the kidney and liver showed copper accumulation using rubeanic acid staining, confirming copper toxicity. Blood copper concentrations in cohorts were within the toxic range. It was advised that all copper supplementations be immediately withdrawn from the group.

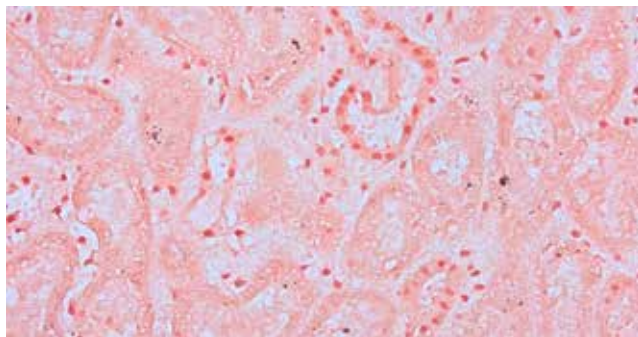


Figure 15: Rubeanic acid stain showing copper accumulation within renal tubular epithelial cells. Photo: Brian Toland.



Figure 16: Generalised icterus of a four-month-old calf. Photo: Brian Toland.

Other species

Intussusception in a foal

RVL examined the carcase of a one-month-old foal with a history of severe diarrhoea and colic. Post-mortem examination revealed an approximately 30-40cm intussusception of the distal jejunum, with marked gaseous distension of the jejunal loops proximal to the lesion. There was a well-demarcated gastric ulcer within the pars non-glandularis (squamous mucosa) of the stomach. Gastric ulceration in this location is common in foals, particularly in animals experiencing stress or concurrent illness.



Figure 17: Gastric ulcer affecting the pars non-glandularis of a one-month-old foal. Photo: Rebecca Froehlich-Kelly.



Figure 18: Intestinal intussusception in a foal. Photo: Rebecca Froehlich-Kelly.

Pigs

Meningitis due to *Streptococcus suis*

Three second stage weaners, aged nine weeks old, were submitted to Dublin RVL following several sudden deaths on farm in the preceding few days.

Necropsy findings in all three pigs were consistent with septicaemia and gross findings included pulmonary oedema, severe renal congestion, marked splenomegaly, moderate hepatic congestion, and congested meninges. One pig had a severe, diffuse, fibrinous pericarditis with markedly congested, opaque meninges. The remaining two pigs had fibrinous arthritis characterised by excessive yellow synovial fluid containing scattered fibrin strands.

Streptococcus suis was cultured from the brain in two pigs and from multiple organs and joints. Histopathological

examination of the three brains confirmed severe fibrinosuppurative meningitis. The isolate was identified as *S. suis* serotype 2 or serotype 1/2. *S. suis* commonly colonises the tonsils and upper respiratory tract of healthy pigs but can cause meningitis, septicaemia, polyserositis, and arthritis.

Other manifestations include endocarditis, myocarditis, pericarditis, and less commonly, abortion. There are several serotypes of *S. suis*, serotype distribution varies geographically; therefore, serotyping may assist investigations of herd outbreaks.

S. suis is a zoonotic pathogen. Human infection is most associated with occupational exposure to pigs or raw pork products. Infections in humans due to *S. suis* may include septicaemia, meningitis, endocarditis, and septic shock.

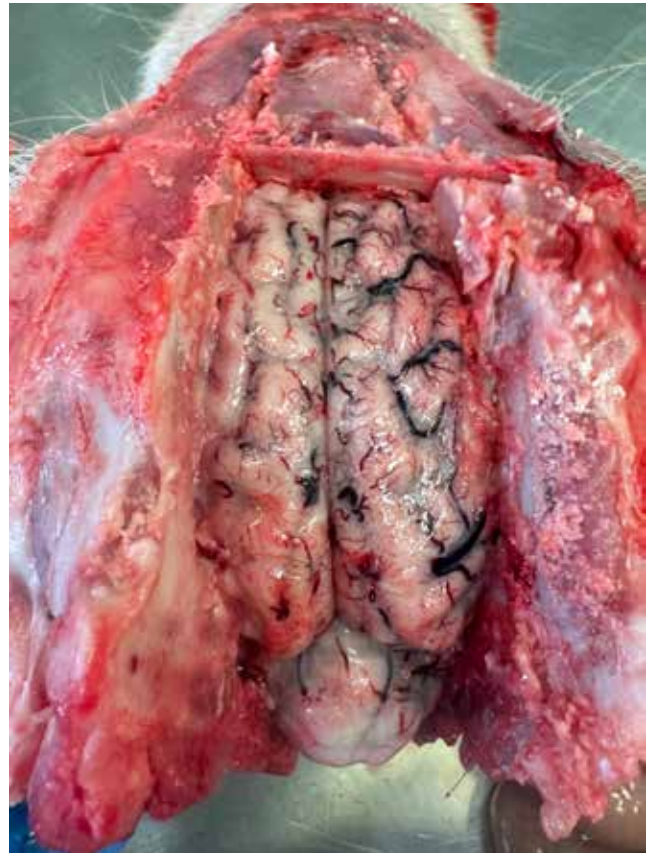


Figure 19: Markedly congested and diffusely opaque meninges. Photo: Sara Salgado.

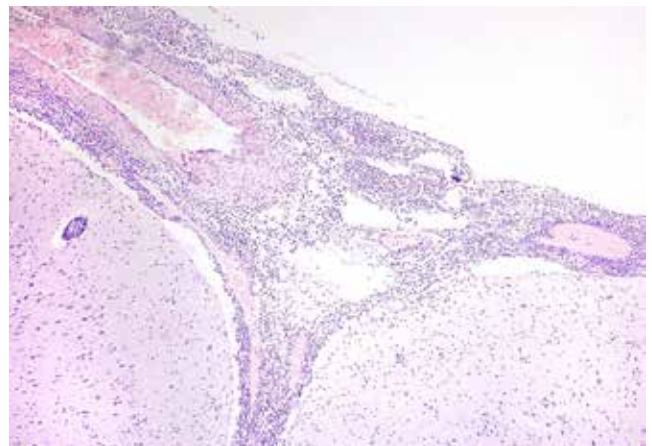


Figure 20: Histologic section showing severe fibrinosuppurative meningitis. Photo: Cosme Sanchez.