

REGIONAL VETERINARY LABORATORIES REPORT

January 2026

Regional Veterinary Laboratories (RVLs) carried out necropsy examinations on 700 carcasses and 450 fetuses during January 2026. Additionally, 1,322 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 January 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 and enteritis were the most common diagnoses at necropsy in cattle in the RVLs during January 2026.

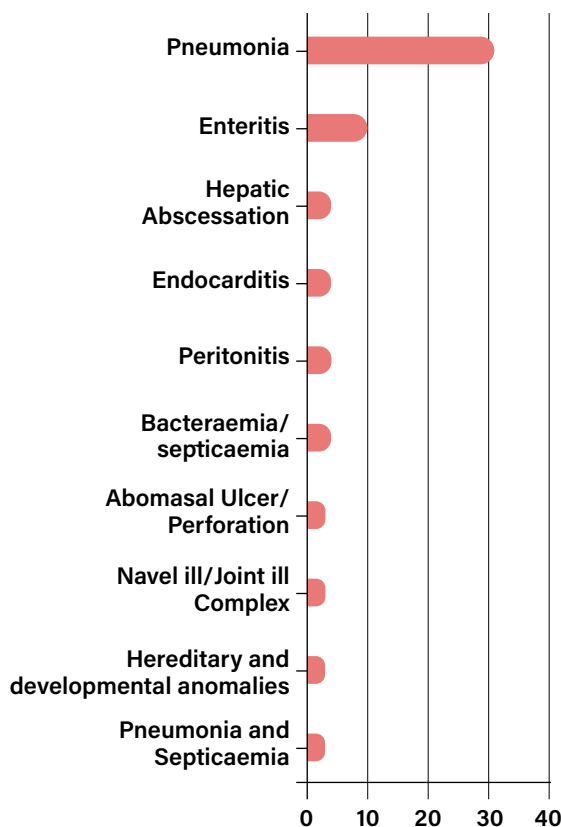


Table 1: The most common diagnoses in cattle submitted for necropsy in January 2026.

Gastrointestinal tract

Septicaemia

A two-year-old Aberdeen Angus cross bullock was submitted to Limerick RVL, the animal was noticed passing blood at pasture and died shortly afterwards without treatment. Necropsy revealed the small and large intestines with thickened walls and corrugated inflamed mucosa, with bloody watery contents. Histopathology of the liver showed periacinar and paracentral degeneration, swollen hepatocytes, and random hepatocyte necrosis with scattered sinusoidal thrombosis (differentials include: hepatotoxins, septicaemia, endotoxaemia, and disseminated intravascular coagulation). The intestines were autolysed. Pure beta-haemolytic *Escherichia coli* was cultured from

liver, lung, and intestines which is suggestive of septicaemia. Whole genome sequencing of *E. coli* identified 57 unique genes or genetic markers associated with virulence, including antimicrobial resistance, suggesting this is likely a pathogenic *E. coli* strain.

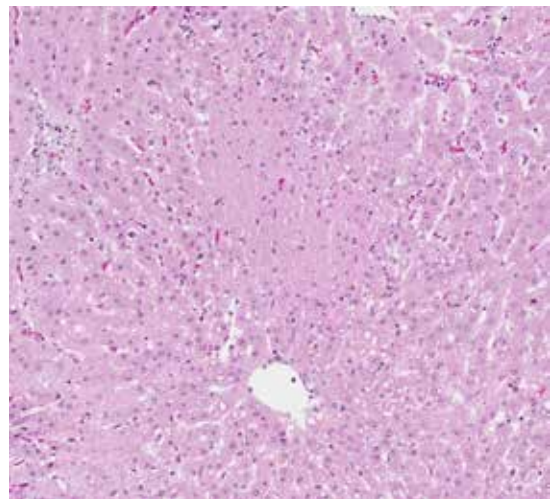


Figure 1: Photomicrograph of the liver showing periacinar and paracentral degeneration, swollen hepatocytes, and necrosis. Photo: Brian Toland.

Haemorrhagic enterocolitis

The carcass of a three-week-old calf with a history of sudden death was submitted to Sligo RVL. On post-mortem examination, the calf was anaemic and severely dehydrated. There was diffuse, haemorrhagic enterocolitis with blood clots present in the intestinal lumen. *Campylobacter jejuni* was isolated from the lesions.



Figure 2: Extensive fungal reticulitis and rumenitis from which *Candida albicans* was cultured. Photo: Rebecca Froelich-Kelly.

Fungal reticulo-rumenitis

The carcase of a one-week-old calf which presented with weakness and bloat, and died despite numerous veterinary treatments, was presented to Sligo RVL. On post-mortem examination, there was extensive fungal reticulitis and rumenitis. *Candida albicans* was cultured from lesions in the rumen and reticulum. Bovine respiratory syncytial virus (BRSV) was detected in the lungs. On histopathology, there was diffuse, acute, severe, necrotising rumenitis with fungal spores visible on special stains. Mycotic rumenitis was diagnosed as cause of death in this case.

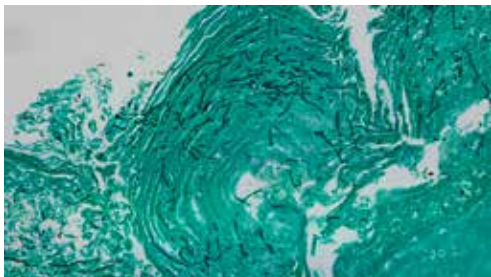


Figure 3: Fungal hyphae and spores visualised using a Grocott's stain. Photo: Rebecca Froelich-Kelly.

Intestinal rupture

Sligo RVL received the carcase of a two-year-old bull that, on the day of dying, showed signs of pain and distress with kicking and recumbency. There were slight traces of melaena. On post-mortem examination, there was three to four litres of haemorrhagic fluid present in the abdominal cavity. The small intestine was severely, diffusely haemorrhagic; the serosa and mucosa were both affected and there was a blood-filled lumen. The associated small intestine was necrotic and there was complete disintegration of walls in some sections. Approximately 20cm in length was affected. There was ruminal acidosis with ruminal contents giving a pH of 5.13. Acidosis can cause an endotoxaemia and changes in gastrointestinal motility. It was considered likely that the intestinal changes occurred secondary to rumen acidosis and were the cause of clinical signs of pain described.

Omphalophlebitis

Limerick RVL examined a nine-day-old calf with signs of tenesmus and constipation. Necropsy revealed an enlarged, infected umbilical vessel tracking to the liver, and a generalised fibrinous peritonitis. Peritonitis is most commonly a secondary condition arising from navel ill (omphalitis/omphalophlebitis), where bacterial infections travel from the umbilicus to the abdominal cavity. Zinc sulphate turbidity (ZST) levels were sub-optimal due to lack of colostrum or excessive challenge of infection. A review of treatment of navels, improved colostrum management, and improved hygiene around calving to prevent further cases was advised.



Figure 4: Generalised fibrinous peritonitis. Photo: Brian Toland.

Hepatic abscessation

A 20-month-old bullock was found dead and submitted to Kilkenny RVL. There was multifocal liver abscessation and the lungs felt "meaty" and were oedematous. *Trueperella pyogenes* was cultured from multiple organs suggesting a bacteraemia. Hepatic abscessation can have multiple origins; it is assumed that the main cause of hepatic abscesses is haematogenous spread through the portal vein, often associated with ruminitis, due to previous ruminal acidosis.

Respiratory tract



Figure 5: Pneumonia – cranioventral consolidation affecting approximately 50-60 per cent of lung tissue. Photo: Aideen Kennedy.

Pneumonia

A two-month-old calf was submitted to Kilkenny RVL having been found dead. It had been disbudded the previous day. There had been a history of pneumonia in the group a few weeks previously. On examination, there was severe pneumonia. There was cranioventral consolidation affecting approximately 50 to 60 per cent of lung tissue. There were multifocal abscesses within the consolidated region. The disbudding wound appeared normal. Both *Mycoplasma bovis* and *Histophilus somni* were identified on polymerase chain reaction (PCR) testing and a review of control of respiratory disease was advised.

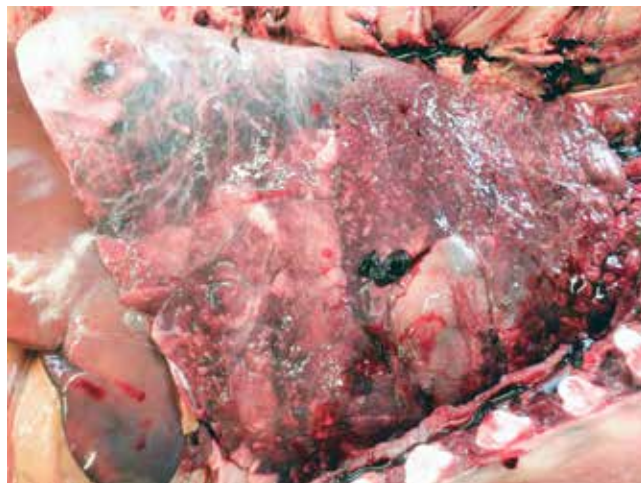


Figure 6: Photo of bovine pneumonia. Photo: Maresa Sheehan.

A four-month-old calf was submitted to Kilkenny RVL with a history of respiratory distress. There was a severe pneumonia affecting approximately 100 per cent of both right and left lungs. There was cranioventral consolidation and caudal overinflation with multifocal bullae formation. There were multiple, small, white necrotic foci within the consolidated areas. Laboratory testing detected multiple bacterial respiratory pathogens: *Bibersteinia trehalosi*, *Mannheimia haemolytica*, *H. somni*, *Mycoplasma bovis* and *Pasteurella multocida*.



Figure 7: Pneumonia with fibrin visible on the pleural surface. Photo: Aideen Kennedy.

A one-week-old calf in respiratory distress did not respond to antibiotic treatment and was submitted to Kilkenny RVL. There was a severe fibrinous pneumonia and pleuritis with adhesions to the pericardium. Approximately 60 per cent of the lung tissue was consolidated. *E. coli* was cultured from multiple organs and PCR results for *M. haemolytica* were positive.

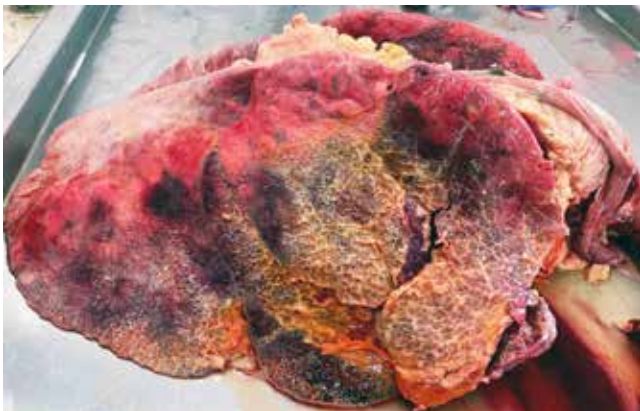


Figure 8: Severe fibrinous pleuropneumonia with consolidation. Photo: Brian Toland.

Limerick RVL examined a two-year-old, in-calf heifer with no response to treatment for pneumonia. Post-mortem revealed a severe fibrinous pleuropneumonia with consolidation of approximately 50-60 percent of the lungs and distinctive marbled appearance of remaining lung tissue indicating interlobular oedema and emphysema. The thorax contained a large volume of yellow fibrinous fluid. These lesions are characteristic of *M. Haemolytica*; a strong positive was detected on PCR.

Urinary/reproductive tract



Figure 9: BVD infection – firm liver with a roughened honeycomb appearance on its surface. Photo: Brian Toland.

Bovine diarrhoea virus

An aborted foetus, of approximately eight months' gestation, was submitted to Limerick RVL; it was the second abortion in a 21-cow suckler herd. Post-mortem revealed an abdominal cavity filled with blood; the liver was firm to touch with a roughened honeycomb appearance on its surface. Bovine diarrhoea virus (BVD) was detected by PCR; prompt testing of any newborn calves was recommended. Vaccination and whole herd test will be included in the Targeted Advisory Service on Animal Health (TASAH) follow-up.



Figure 10: Acute toxic mastitis with hyperaemic skin over back left and right quarters of the udder. Photo: Aoife Coleman.

Septic mastitis

Athlone RVL examined a 532kg dairy cow that had been dried off four days previously. Grossly, there was hyperaemic skin over the back left and right quarters of the udder; both hind quarters were markedly firm on palpation. There was significant subcutaneous oedema around the back quarters and subcutaneous and intermuscular oedema - "flagging" - in tissues at the back of the udder. On necropsy, the spleen, lung, and epicardium had marked petechiation and ecchymosis. *E.coli* was isolated from multiple organs, including two mammary gland sections. On histopathology, in multiple sections of mammary gland, there were thrombosed, small- and medium- calibre blood vessels and lymphatics. There were multifocal, scattered, small necrotising foci of mastitis affecting individual or

small clusters of mammary acini. There was fibrino-cellular debris with bacterial colonies (cocci/bacilli) in a section of mammary duct. Small, round, mineralised foci (lactoliths) were common within acini in these sections. In the lung, there was alveolar congestion, alveolar oedema and some interalveolar haemorrhage, interstitial pneumonia, with thrombosis of some blood vessels and lymphatics, and haemorrhage in the pleura and adjacent interlobular septa. The histological findings confirmed a septic mastitis. The thrombi in vessels in both the mammary gland and lung were consistent with disseminated intravascular coagulation, a recognised complication in endotoxaemic *E.coli* mastitis in cattle.



Figure 11: Cross-section of the udder in a case of toxic mastitis. Photo: Aoife Coleman.

Cardiovascular system

Vegetative endocarditis

Sligo RVL diagnosed vegetative endocarditis in a ten-week-old calf. The calf was unwell in the weeks prior to death, occasionally improving after antimicrobial treatment but always relapsing. On necropsy, there was multifocal abscessation in the left lung. The heart presented with severe vegetative inflammatory changes on the valves of the left ventricle. *T. pyogenes* was cultured from the lesion.

Nervous system

Meningitis

A 10-month-old feedlot weanling was submitted to Dublin RVL for post-mortem examination with a history of nervous signs which were unresponsive to treatment over a period of two days. Others in the group were developing similar clinical signs. Gross examination found the meninges to be oedematous, with a marked fibrinous exudation. *H. somni* infection was confirmed on PCR testing of a swab of the meninges. Given gross changes of severe fibrinous meningitis and a positive *H. somni* PCR finding, a diagnosis of thrombotic meningoencephalitis was arrived at in this case. *H. somni* is a commensal of the mucous membranes of the upper respiratory tract in cattle. Calves may be infected from their dams in the early months of life and carry the bacterium into other farms or feedlots. Infection may be preceded by stress, such as transportation.



Figure 12: Fibrinous meningitis in a 10-month-old weanling with a history of acute nervous signs. Photo: Colm Brady.

Listeriosis

Athlone RVL examined a four-year-old pregnant cow with history of recumbency. Gross examination disclosed congestion of the meninges. No anomalies were detected in ocular fluid level and lead levels were normal. On histopathology, within the midbrain, there was severe multifocal-to-coalescing microabscessation with macrophages and neutrophils, malacia, axonal swelling, and spheroids. Within the medulla, there was multifocal abscessation with macrophages and neutrophils. Multifocally and severely, Virchow-Robin spaces are expanded up to three times normal size by lymphocytes, plasma cells, and macrophages with few neutrophils within hindbrain. Histopathological lesions supported a diagnosis of listeriosis. In ruminants, *Listeria monocytogenes* can cause encephalitis, septicaemia, abortion, mastitis, and gastroenteritis. The disease is more frequent in winter and early spring, and outbreaks of disease are known to occur when animals are exposed to a single contaminated source such as silage. *L. monocytogenes* gains access to the brainstem via migration through axons of various cranial nerves (most commonly the trigeminal nerve), using the oropharyngeal mucosae as the portal of entry.

Sheep

Pneumonia, bacteraemia/septicaemia, and chronic fascioliosis were the most common diagnoses at necropsy in sheep in the RVLs during January 2026.

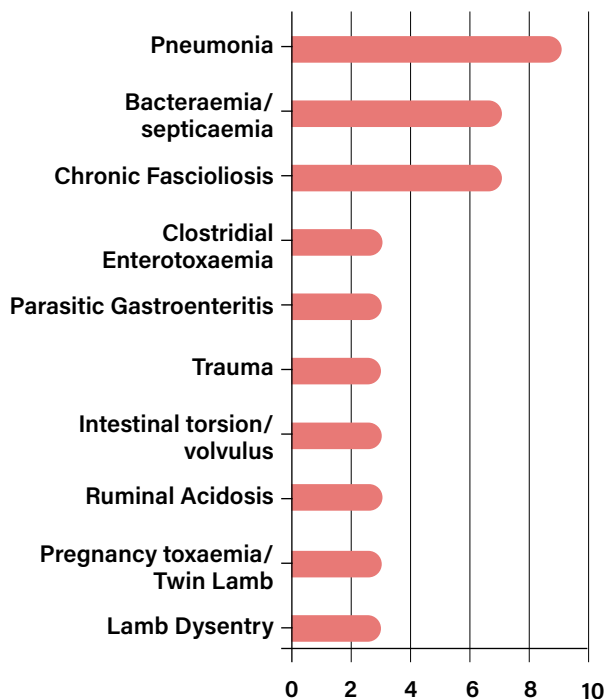


Table 2: The most common diagnoses in sheep submitted for necropsy in January 2026.

Gastrointestinal tract

Acidosis

A nine-month-old hogget was anorexic and did not respond to treatment, and was submitted to Kilkenny RVL. On examination, the carcass was autolysed; however, the rumen was packed with grain. In addition, the aqueous humour calcium concentration was low (hypocalcaemia), possibly due to not eating. While the rumen pH was within normal limits, this value can rise post-mortem and as the carcass was autolysed, given the large volume of undigested grain, previous acidosis/grain overload could not be excluded.



Figure 13: Significant quantities of grain in the rumen of a hogget. Photo: Aideen Kennedy.

Braxy

A ten-month-old, pedigree Zwartble ewe lamb that was running with the ram was submitted to Limerick RVL. Post-mortem examination revealed an abomasum with marked

inflammation and thickening of abomasal mucosa, with bloody liquid contents. *Clostridium septicum* was detected; this causes braxy in sheep, which is a fatal disease leading to sudden death. This often affects sheep in winter when sheep eat frosted forage, damaging the mucosa of the abomasum and allowing the bacteria to multiply and release toxins. Clostridial control relies on multivalent clostridial vaccines, as treatment is usually ineffective.

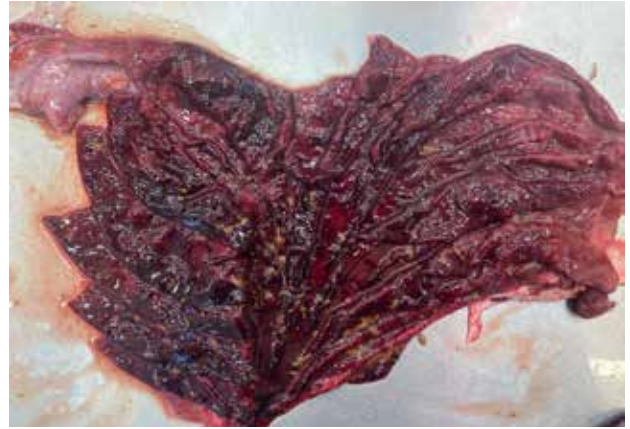


Figure 14: A case of braxy with thickening of abomasal mucosa, with bloody liquid contents. Photo: Brian Toland.

Respiratory tract

Pneumonia

A four-year-old ewe was submitted to Dublin RVL for post-mortem examination with a history of having been found dead in the morning. She had been checked by the herdowner the previous day and appeared normal. On gross post-mortem examination, the lungs were found to be heavy, wet, firm, and very heavily congested throughout. Both *M. haemolytica* and *B. trehalosi* were isolated from the lung. Both pathogens are commensals of the tonsil and nasopharynx of sheep. Stress may trigger invasion of these pathogens into the pulmonary tissue resulting in pneumonia and septicaemia. The clinical course prior to death may be very short with both of these pathogens.

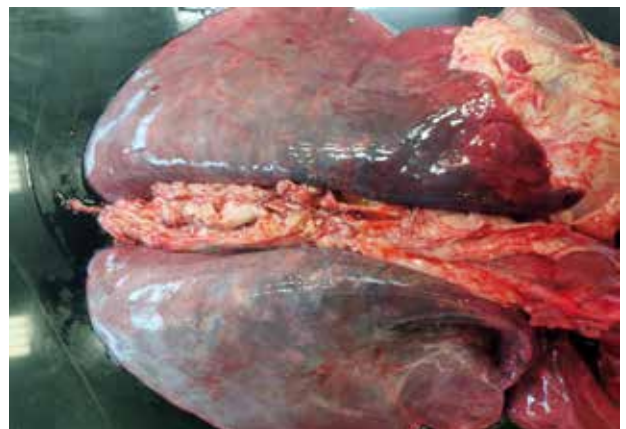


Figure 15: Heavily congested and oedematous lungs in a four-year-old ewe with a dual infection by *Mannheimia haemolytica* and *Bibersteinia trehalosi*. Photo: Colm Brady.

Urinary/reproductive tract

Enzootic abortion of ewes/toxoplasmosis

Ovine foetuses and placenta were submitted to Kilkenny RVL from a holding where there had been a number of

abortions in the flock. There was an exudate on the placenta, primarily intercotyledonary but extending over cotyledons. PCR results were positive for both *Chlamydia abortus* (formerly *Chlamydophila abortus*), the causative organism of enzootic abortion of ewes (EAE), and *Toxoplasma gondii*. It was advised that both agents are potentially zoonotic.

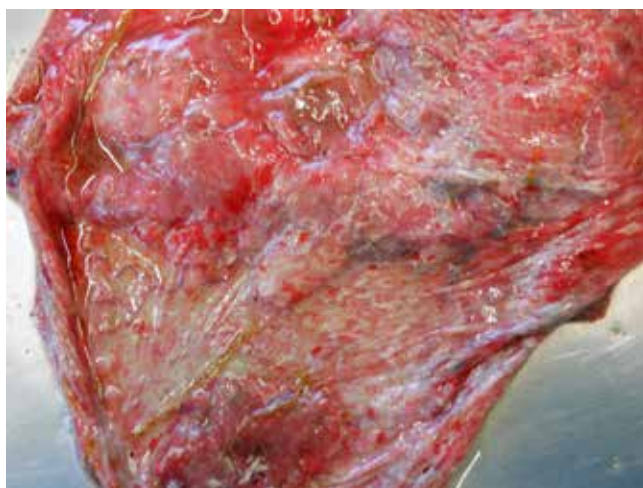


Figure 16: Severe, fibrinous, haemorrhagic placenta with both cotyledons and intercotyledonary areas affected. Photo: Aideen Kennedy.

Athlone RVL examined twin ovine abortions from the fourth ewe to abort in a flock. There was a severe, fibrinous, haemorrhagic placenta with both cotyledons and intercotyledonary areas affected. A positive PCR result for EAE was returned. On histopathological examination, there was multifocal-to-coalescing necrosis of the villi of the cotyledons with abundant karyorrhectic debris, haemorrhage, and a severe suppurative infiltrate. There was oedema of the chorioallantois with fibrin and, predominantly, a neutrophilic infiltration. There was multifocal vasculitis with suppurative perivascular cuffing. Occasional fibrin was observed within the tunica media of larger vessels (fibrinoid necrosis). Review of control methods, vaccination, biocontainment, and biosecurity was advised.



Figure 17: A severe, fibrinous, haemorrhagic placenta in a case of enzootic abortion of ewes. Photo: Aoife Coleman.

Vibriosis

Lamb foetuses were submitted to Kilkenny RVL from a flock with multiple abortions; some lambs had been born alive but died shortly after birth. Three foetuses had no visible lesions, the fourth had multiple large foci of necrosis on the liver. *Campylobacter* sp. was cultured from three of the foetuses. *Campylobacter* abortion (vibriosis) in sheep is caused by *Campylobacter fetus* subspecies *fetus* or *C. jejuni*.

Initial source of infection is faeces of domestic livestock (e.g., about 10 per cent of cattle faeces are positive for *Campylobacter* spp.), dogs, and wildlife, including birds. Contamination of water supplies or feed troughs with faeces may pose a risk. Ingestion of food or water contaminated with the bacteria gives rise to a primary infection during pregnancy. Large numbers of organisms are present in the products of abortion (foetus, placenta, uterine fluids) and these are the main source of infection for susceptible ewes. Abortion usually occurs in the last third of pregnancy and large abortion storms may occur. The ewes do not usually become ill and do not abort from this cause in subsequent pregnancies. Immunity is likely to be lifelong.



Figure 18: Multifocal large foci of necrosis on the liver characteristic of *Campylobacter* sp. Photo: Aideen Kennedy.

Metritis

The carcase of a two-year-old ewe which appeared to have watery eyes, mild pneumonia, and mild diarrhoea was submitted to Sligo RVL. The ewe had previously been scanned with twins and was in the last pregnancy trimester. On post-mortem examination, there were no foetuses present in the uterus but there was a severe purulent metritis. There was a mild, focal, laryngeal chondritis. *Streptococcus uberis* was cultured from the uterus. *Anaplasma phagocytophylum* was detected by PCR. Metritis and underlying, potentially pre-disposing, tick-borne fever (TBF) was diagnosed as cause of death. In recent years, TBF has been diagnosed in winter months, likely due to ongoing activity of tick vectors in certain niche habitats on farms.

Mastitis

The carcase of a five-year old ewe was submitted to Sligo RVL with a history of illness after a difficult lambing and no improvement upon treatment. On post-mortem examination, there was severe mastitis in the left udder, as well as metritis. *Staphylococcus aureus* was cultured from the udder and lung. On histopathology, there was multifocal, acute, moderate, necrotising, suppurative mastitis with extensive subcutaneous oedema. Mastitis with bacteraemia and likely sepsis was diagnosed as cause of death.

Listeriosis

A two-year-old hogget with a history of sudden death was submitted to Sligo RVL. On post-mortem examination, there was diffuse, proliferative abomasitis. There was typhlitis with

multifocal mucosal erosions. There was a very small amount of amniotic fluid present in the pregnant uterus. There was a high faecal worm egg count, with 1,100 strongyle eggs per gram (EPG). *L. monocytogenes* was cultured from the liver and detected on PCR from the uterus. On histopathology, there was: multifocal, acute, necro-suppurative metritis; multifocal, acute, severe necro-suppurative enteritis; and multifocal, mild, acute, suppurative hepatitis with micro thrombosis. Septicaemia due to listeriosis was diagnosed, likely complicated by chronic parasitism.

Goats

Toxoplasmosis

Three caprine foetuses were submitted to Dublin RVL from a dairy goat flock. They were the second abortion from 65 milking goats. The goats had no previous vaccinations. One of the foetuses was mummified and the other two were of almost five-month-gestation. There were no visible gross lesions on the foetuses. Two placentas were submitted, and the cotyledons were dark with multifocal pale areas. Histopathology of the placenta showed multifocal areas of necrosis and mineralisation. Immunohistochemistry was performed in both placentas, and toxoplasmosis was confirmed. Also, *T. gondii* PCR tests were positive. Depending on the stage of gestation, when infection occurs there may be reabsorption, abortion, or death shortly after birth. *T. gondii* is a zoonotic agent of greatest risk to immunocompromised people and pregnant women. A review of the toxoplasma control programme on farm was recommended.

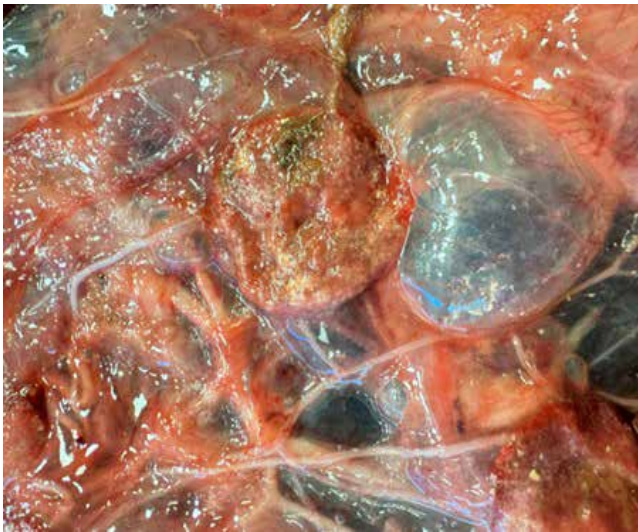


Figure 19: Dark cotyledons with multifocal pale areas. Photo: Sara Salgado.

Pigs

Contagious pleuropneumonia

Three finisher pigs were submitted to Dublin RVL from a commercial pig unit with a history of sudden death. Gross changes were similar in the three pigs with a fibrinous exudation onto pleural surfaces and dark areas of hard pulmonary consolidation. *Actinobacillus pleuropneumoniae* (APP) was isolated from affected lung tissue confirming a diagnosis of contagious pleuropneumonia. APP may be carried in the nasopharynx of apparently healthy pigs, and such carrier pigs are the principal way APP is introduced into a naïve herd. APP is transmitted by direct contact with infected pigs or by spread of aerosol droplets over short

distances and this virulent primary pathogen may cause disease in the absence of predisposing factors.



Figure 20: Contagious pleuropneumonia in a finisher pig with a history of sudden death. Photo: Colm Brady.

Clarification:

In the adenoviral enteritis and nephritis case described in the RVL report for December 2025 in *Veterinary Ireland Journal*, Vol. 16, No. 3, page 158, the virus identified was: Bovine adenovirus serotype 10, strain Belfast 1.