REGIONAL VETERINARY LABORATORIES REPORT

October 2025

Regional Veterinary Laboratories (RVLs) carried out necropsy examinations on 535 carcases and 45 foetuses during October 2025. Additionally, 1,595 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 October 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 blackleg were the most common diagnoses at necropsy in cattle in the RVLs during October 2025.

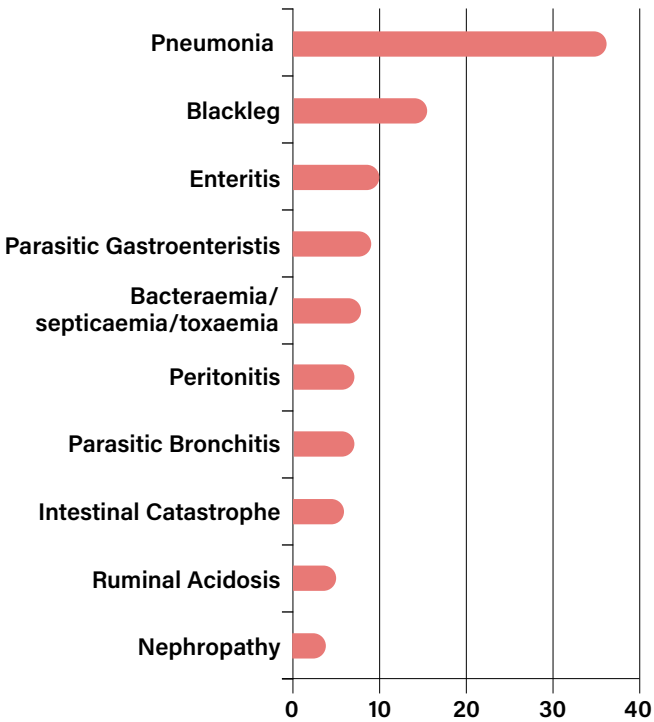

Table 1: **The most common diagnoses in cattle submitted for necropsy in October 2025.**

Gastrointestinal Tract

Summer scour syndrome

A seven-month-old weanling in poor condition died and was submitted to Kilkenny RVL. On necropsy, there was a tongue ulcer and a marked oesophagitis. No significant infectious agent was detected on lab tests. On histopathology, there was necrotising and ulcerative oesophagitis with small numbers of hyper-eosinophilic cells, and summer scour syndrome was considered a possible cause for the lesions seen.

Figure 1: **Oesophagitis in a case of suspect summer scour in a calf. Photo: Aideen Kennedy.**

Peritonitis

A two-month-old suckler calf was submitted to Athlone RVL for post-mortem examination with a history of having been treated for two days for an ulcer. Body condition was good, weight 104kg. The umbilicus was enlarged and purulent upon cross section. There was a severe, diffuse, fibrinous, 'bread-and-butter' peritonitis with adhesions between loops of intestines. There were haemorrhages on the serosa of the gastrointestinal tract (GIT) but no abomasal ulcer was found. Joints were unremarkable. *Escherichia coli* was isolated from the navel and intestines. A conclusion of peritonitis secondary to an umbilical infection was made.

Figure 2: **A severe, diffuse, fibrinous peritonitis in a calf. Photo: Denise Murphy.**

Fungal abomasitis/abomasal ulceration
A nine-month-old Charolais suckler weanling with no response to treatment for melaena was submitted to Limerick RVL. Necropsy revealed an abomasum filled with dark, red/black, bloody contents, and there were multifocal non-perforated ulcers approximately 1-2cm wide in the pyloric region, and multifocal pinpoint ulcers present in the body of the abomasum. The liver was enlarged with an orange discolouration. Histopathology disclosed a fungal abomasitis and suppurative cholangitis. *E. coli* was cultured from multiple organs which is suggestive of a bacteraemia/ septicaemia. Factors that are considered to contribute to the incidence of abomasal ulcers are: overuse or prolonged use of non-steroidal anti-inflammatory drugs (NSAIDS); corticosteroids; physiological stress; concurrent disease; mineral deficiencies, such as copper; diet; bovine diarrhoea virus (BVD); infectious bovine rhinotracheitis (IBR); malignant catarrhal fever (MCF); and the presence of certain enteric bacteria, clostridia, fungi and parasites.

Figure 3: **Multifocal non-perforated abomasal ulcers in a Charolais weanling; histopathology disclosed a fungal abomasitis. Photo: Brian Toland.**

Hepatic abscessation
The carcase of an eight-month-old weanling with reported anorexia and pyrexia prior to death was submitted to Sligo RVL. On gross post-mortem examination, there was severe enophthalmos and mild jaundice. The liver presented with a 10cm x 5cm-sized abscess in the liver parenchyma. A causative pathogen could not be detected but liver abscessation is a frequent sequel to rumenitis or other causes of bacteraemia. Ante-mortem antimicrobial treatment may have impaired bacterial culture.

Respiratory Tract

Figure 4: **Fibrinous pleuritis and pneumonia in a cow, showing the interlobular septae markedly distended with fibrin. Photo: Aideen Kennedy.**

Pleuropneumonia
A five-year-old cow was submitted to Kilkenny RVL with a history of respiratory signs. On necropsy, there was a fibrinous pleuritis and pneumonia, and approximately 50 per cent of the pulmonary tissue was consolidated. The interlobular septae were markedly distended with fibrin and there were adhesions between the pleura and the pericardium. *Mannheimia haemolytica* was cultured from multiple organs suggesting a bacteraemia. Reports of acute pleuropneumonia in dairy cows, associated with *M. haemolytica*, have increased in Europe in the last number of years. (Emergence of fatal *Mannheimia haemolytica* infections in cattle in the Netherlands, M.M. Biesheuvel, G. van Schaik, N.M. Meertens, N.H. Peperkamp, E. van Engelen, E. van Garderen, *The Veterinary Journal*, Volume 268, February 2021, 105576).

Figure 5: **Thickened abomasal mucosa, cross sections of nematodes were seen on histopathology. Photo: Aideen Kennedy.**

Parasitic bronchitis
A 13-month-old heifer with suspected pneumonia failed to respond to treatment and was submitted to Kilkenny RVL. There was a marked interstitial pneumonia with multifocal 'ground glass' emphysema and bullous emphysema. The abomasum mucosa appeared thickened. There were no

significant findings on culture or polymerase chain reaction (PCR) tests. Lung histopathology showed an eosinophilic broncho-interstitial pneumonia with hyaline membranes, emphysema. The main differentials for broncho-interstitial pneumonia include parasitic, allergic, and viral aetiologies. Although no lungworm were seen grossly, the presence of eosinophils may suggest the involvement of *Dictyocaulus viviparus*. In addition, cross sections of nematodes were seen on abomasum histopathology, and a review of parasite control was recommended.

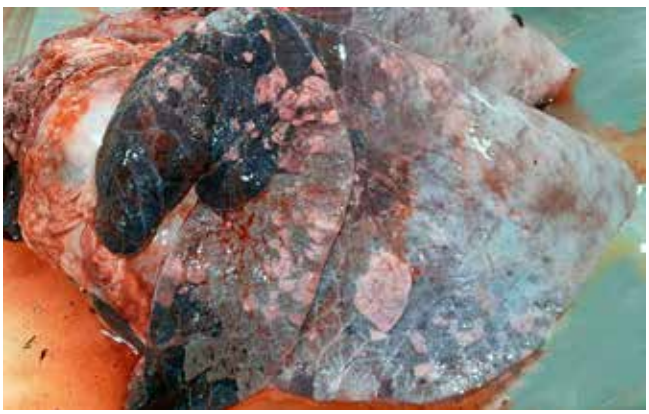

Figure 6: **A case of parasitic pneumonia displaying bilateral, caudo-dorsal, subpleural and interlobular pulmonary emphysema. Photo: Denise Murphy.**

Athlone RVL saw several cases of parasitic ('hoose') pneumonia in October. One such case examined was a seven-month-old weanling with a history of having been found dead. It was the third similar loss out of a group of calves bought in June. There was bilateral, caudo-dorsal, subpleural and interlobular pulmonary emphysema, and anteroventral pulmonary consolidation. No lungworm were seen in the trachea or bronchial tree. *Pasteurella multocida* was detected in the lungs by PCR and culture. PCR tests for respiratory viruses were negative. Histopathology of the lung showed diffuse, alveolar damage with hyaline membranes and a large eosinophilic infiltrate in the interstitium and in peribronchiolar tissues. Sections from cranial lobes showed a suppurative bronchopneumonia. A conclusion of hoose pneumonia with secondary bacterial infection was made.

Urinary/Reproductive Tract

Figure 7: **Aspirated meconium evident in amniotic fluid in the trachea of a stillborn calf. Photo: Brian Toland.**

Foetal asphyxia

A very large stillborn Charolais calf was submitted to Limerick RVL. On external examination, the head, tongue, and neck were swollen with meconium staining of the coat. Post-mortem examination revealed a significant quantity of meconium-stained fluid in the trachea, with congested lungs. Culture and PCR tests were negative for infectious agents. Histopathology showed meconium visible in the airways. These findings are suggestive of foetal asphyxiation which can be due to any of the following: slow parturition, foetal over size, subclinical hypocalcaemia, or placentitis.

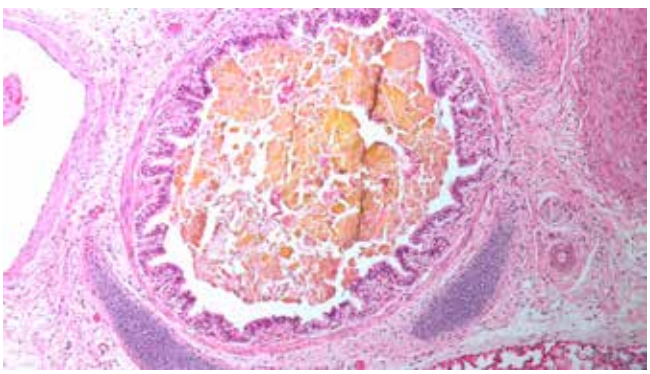

Figure 8: **Meconium visible in the airways of a stillborn calf. Photo: Brian Toland.**

Developmental nephrosis

Athlone examined a six-month-old weanling with a history of ruminal bloat for two days, ceasing eating, and failure to respond to veterinary treatment. On necropsy, there was a pale carcase with a large amount of excess fluid in the abdominal cavity. Vitreous humour collected from the eye at post-mortem showed a very elevated urea level (41.6mmol/L). Only one kidney was identifiable, and it was enlarged and polycystic. There were no other significant findings in other organs. A conclusion of a congenital/ developmental renal dysplasia was made.

Figure 9: **Enlarged and polycystic kidney, only one kidney was identified present in this animal. Photo: Seamus Fagan.**

Cardiovascular System

Figure 10: **A classic 'bread-and-butter' fibrinous pericarditis in a cow. Photo: Denise Murphy.**

Traumatic reticulopericarditis

Athlone RVL examined a three-year-old cow from a herd with a history of lameness. This cow had fallen and died. There were adhesions between the forestomachs and liver and the diaphragm. There was a severe, necrotising pneumonia in cranioventral lung lobes and a severe 'bread-and-butter' fibrinous pericarditis. A foreign body was not found in the reticulum, but small shards of metal were present, and an undetected/resorbed foreign body was suspected as the cause. There were ulcers in the interdigital skin of the hindlimbs, sole ulcers, and necrosis and mild heel horn erosion in both hind feet. *Trueperella pyogenes* was isolated from the lung and heart. Fibrinous pericarditis and necro-suppurative pneumonia (foreign body suspected) was the diagnosis made. A review of lameness control measures on farm was also advised.

Figure 11: **A tear in the wall of the caudal vena cava of a cow. Photo: Denise Murphy.**

Vena caval rupture

Athlone RVL examined a four-year-old cow with a history of having been found dead. Carcase preservation was poor. There was a large volume of blood and free blood clots in the thoracic cavity; this volume almost filled a 15L bucket and weighed 13kg. There was a 4-5cm tear in the wall of the caudal vena cava just at the level of the diaphragm, but no thrombus was found in the vessel. The liver and lungs were autolysed and pale but there was no abscess or haemorrhage found in either. Marked retroperitoneal haemorrhage was present around the right kidney; the mammary gland was unremarkable. A conclusion of haemothorax secondary to ruptured caudal vena cava was made. Large vessel ruptures are reported to occur due to erosion of the vessel wall by bacteria as a result of hepatic abscesses leading to caudal vena caval thrombosis, however neither a liver abscess nor a thrombus was found in this case.

Nervous System

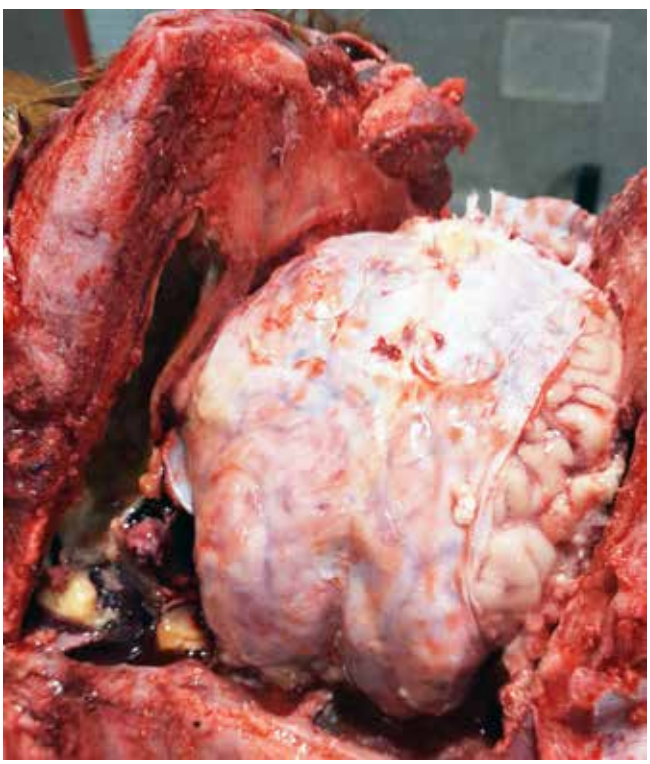

Figure 12: **Fibrin and haemorrhage in the right caudal frontal sinus of a recently dehorned calf. Photo: Denise Murphy.**

Post dehorning encephalitis

Athlone RVL examined a five-month-old suckler calf with a history of sudden death. Carcase preservation was poor. The left pinna was swelled and filled with pus associated with an infected ear tag. There was yellow discoloration and slight softening of the right dehorning site, with subcutaneous haemorrhage around it. There was fibrin and haemorrhage in the right caudal frontal sinus underlying the dehorning site. There was a focal area of haemorrhage and suspected malacia in the right caudoventral lateral cerebrum. Histopathology of the brain showed a large area of encephalomalacia with vasculitis and perivascular suppuration. A conclusion of encephalitis secondary to fibrino-haemorrhagic sinusitis was made. Upon further questioning, it emerged that the animal had been dehorned uneventfully using a dehorning shears nine days earlier. Encephalitis is not a direct result of dehorning, but it can be caused by an infection (sinusitis) that stems from improper dehorning or aftercare, which creates a pathway for bacteria to enter the frontal sinus and potentially infect the brain.

Figure 13: **A focal area of encephalitis and necrosis in the right caudoventral lateral cerebrum of a recently dehorned calf. Photo: Densie Murphy.**

Poisonings

Figure 14: **Orange liver and 'port wine-coloured' urine in a case of copper toxicity. Photo: Aideen Kennedy.**

Copper toxicity

A five-month-old calf was submitted to Kilkenny RVL with a history of respiratory signs. The calf was jaundiced. The liver was orange in colour. The kidneys were dark, and the urine was port wine-coloured. Copper toxicity was considered a key differential based on clinical signs. Biochemistry results confirmed elevated copper levels

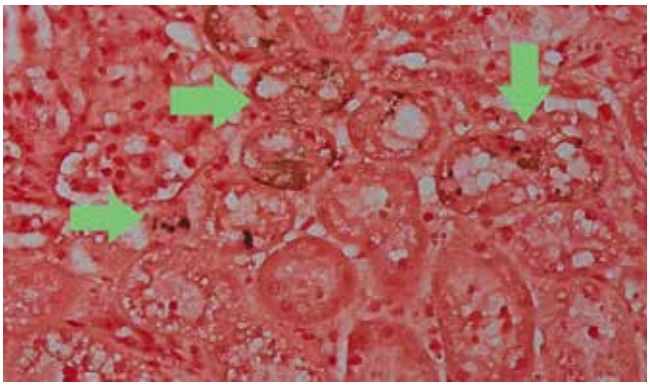

Figure 15: **Black-staining copper deposits (arrows) in kidney tissue of an Aberdeen Angus stained with rubeanic acid. Photo: Brian Toland.**

A seven-month-old Aberdeen Angus heifer was submitted to Limerick RVL with a history of no response to treatment for haemoglobinuria. The carcase was jaundiced; the liver had an orange discolouration, and the bladder was filled with red urine. The abomasum had dark, red, fluid contents and multifocal, non-perforated pinpoint ulcers. The hepatic copper levels were elevated and rubeanic acid staining of the kidney and liver confirmed copper toxicity. There was also a high strongyle worm burden of 1,300EPG.

Miscellaneous

Figure 16: **Palpebral oedema in an animal with black disease. Photo: Rebecca Froehlich-Kelly.**

Black disease

Black disease, or clostridial necrotising hepatitis, was diagnosed in a nine-month-old weanling calf as cause of death in which a *Salmonella enterica* serotype Typhimurium infection was also identified. The animal was recumbent for a week prior to death and showed anorexia as well as diarrhoea. On post-mortem examination, the internal fat depots were depleted. The serosal surfaces were reddened and haemorrhagic.

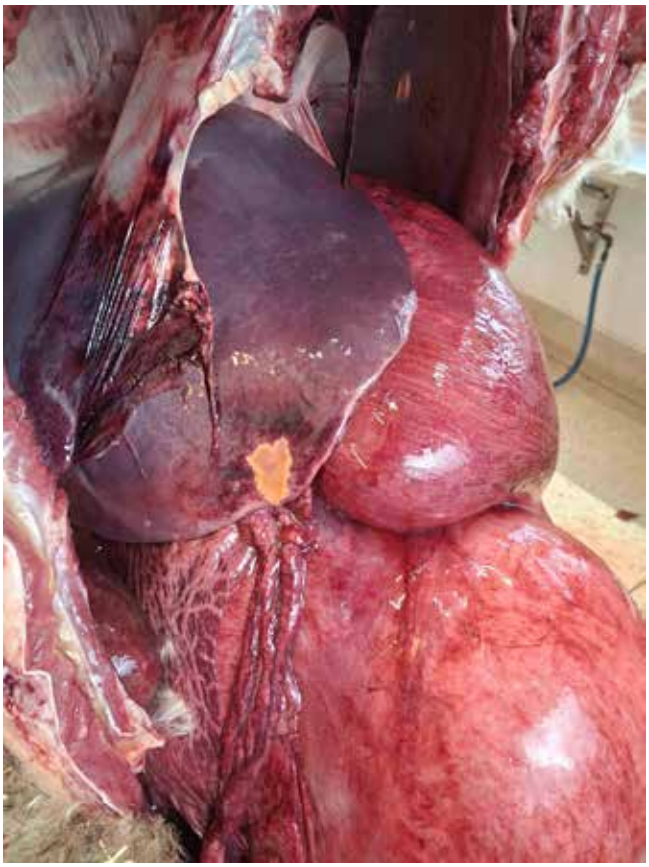

Figure 17: **Reddened omentum and serosa in a weanling with black disease. Photo: Rebecca Froehlich-Kelly.**

There was a 2-3cm-sized pale lesion rimmed with a haemorrhagic border present on the liver. *Clostridium novyi* was detected by fluorescent antibody technique (FAT) from the liver lesion. Clostridial toxaemia due to *C. novyi* was the acute cause of death. This disease is classically associated with activation of clostridial spores during fluke migration, but may occur due to any process that reduces oxygen availability allowing dormant clostridial spores to proliferate in an anaerobic environment and release toxin. In this case depletion of the internal fat depots indicates chronic disease prior to the toxaemia. *Salmonella* Typhimurium was detected in this animal, and it is considered likely the cause of the observed issues. This is a notifiable agent and was reported to the regional veterinary office (RVO).

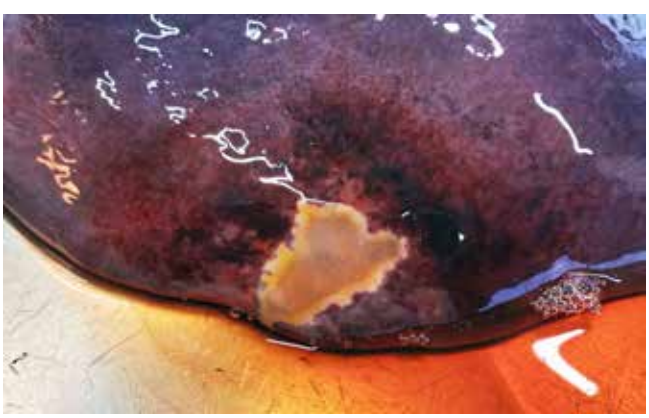

Figure 18: **Classic necrotic lesion in the liver of a weanling with Black disease. Photo: Rebecca Froehlich-Kelly.**

Collagen dysplasia

Sligo RVL examined the carcase of a calf which had been recumbent since birth as its hooves hadn't formed fully. The skin covering joints was thin and the calf was blind and unable to stand. It had to be bottle-fed. On post-mortem examination, there were multifocal areas of alopecia, and the skin was multifocally ulcerated over much of the body. There was septic arthritis and chronic uveitis. Hoof horn was absent from all four limbs. The skin appeared slightly loose over the entire body. On histopathological examination of the skin, the dermal collagen fibres were sparse, widely separated, disorganised and fragmented. The lesions observed were considered similar to reports of collagen dysplasia seen in dermatospraxis which is an analogous condition to Ehlers-Danlos syndrome in humans. Dermatospraxis in cattle is rare but is likely to be inherited and results in extreme skin fragility.

Sheep

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

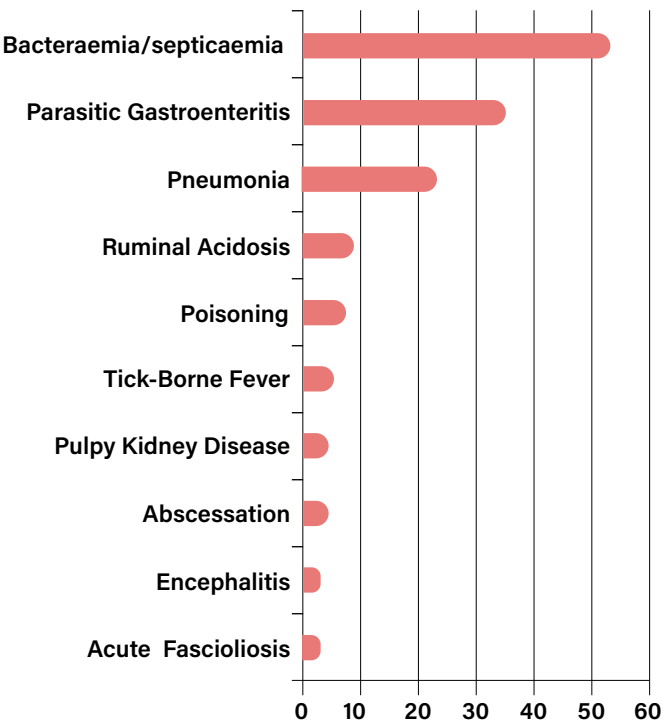

Table 2: **The most common diagnoses in sheep submitted for necropsy in October 2025.**

Respiratory Tract

Pneumonia

Two six-month-old lambs were found dead and submitted to Kilkenny RVL. Both lambs had pneumonia with consolidation of the cranial lobes (30 per cent affected in lamb one, 40 per cent in lamb two). Both had *Haemonchus contortus* nematodes visible in the abomasum and the intestinal contents were fluid; a review of parasite control was recommended. *M. haemolytica* and *P. multocida* were identified in the lungs. PCR results for tick-borne fever (TBF) were also positive. TBF is a rickettsial disease affecting the white blood cells of ruminants. The disease is transmitted by the tick *Ixodes ricinus*. The causative agent *Anaplasma*

phagocytophilum infects eosinophils, neutrophils, and monocytes. The impact of TBF is usually through concurrent immunosuppression and exacerbation of other infections.

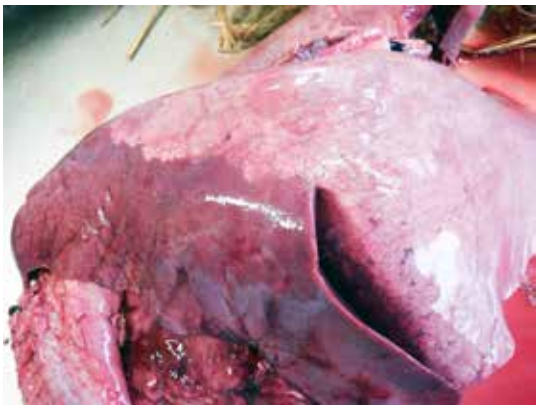

Figure 19: **Pneumonia with consolidation of the cranial lobes in a lamb. Photo: Aideen Kennedy.**

Four spring lambs were submitted for post-mortem examination to Kilkenny RVL. They came from a group of 120, some of which were coughing. On necropsy, they all were found to have poor body condition, pleuritis, and cranioventral consolidation of approximately 30/50 per cent of the lungs. The remainder of the lung tissue was heavy, wet, and severely congested. Histopathology indicated a severe, multifocal, suppurative, and fibrinous bronchopneumonia. *M. haemolytica* was cultured from the lungs and liver. A very high strongyle, *Nematodirus* and *Strongyloides* egg count was detected in all four lambs. Pasteurellosis is a common reason for sudden death in sheep, caused by either *M. haemolytica* or *Bibersteinia trehalosi*, both of which are common commensals located in the pharynx and tonsils. Pasteurellosis typically affects 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 (recent handling, transport or mixing, changes in the weather), poor nutrition, cobalt/selenium deficiency, or underlying infections can cause animals to become susceptible despite appropriate vaccination.

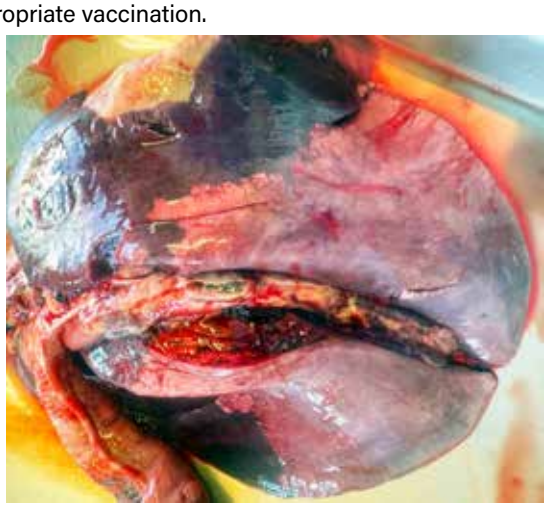

Figure 20: **Ovine lung with cranioventral consolidation from which *Mannheimia haemolytica* was cultured. Photo: Sara Salgado.**

Systemic pasteurellosis

Two hoggets were submitted to Kilkenny RVL with a history of being "off form" and dying rapidly. Both were dehydrated. There was lung consolidation and oesophagitis. *B. trehalosi* was cultured from multiple organs of both hoggets. *M. haemolytica* and *Mycoplasma ovipneumoniae* were also identified.

Figure 21: **Oesophagitis in a lamb. Systemic *Bibersteinia trehalosi* infection was diagnosed. Photo: Denise Murphy.**

Athlone RVL examined a six-month-old lamb, which was the third lamb found dead out of a group of lambs that had been bought-in 10 days earlier. There was faecal soiling of the tail and perineum. There was ulceration at the larynx and along the oesophageal mucosa, and multifocal petechial haemorrhages throughout all lung lobes and multifocal pinpoint-to-5mm dark lesions in the liver. The spleen was enlarged, and intestinal contents and faeces were soft and loose. *B. trehalosi*, the causative agent of systemic pasteurellosis, was isolated from liver and lung, and was detected by PCR. A faecal egg count of 16,200EPG was detected in faeces and seven per cent of the worms were identified as *H. contortus*. *Clostridium perfringens* epsilon toxin was detected in intestinal contents, confirming *Clostridium perfringens* type D enterotoxaemia, or pulpy kidney disease. A conclusion of systemic pasteurellosis, *Clostridium perfringens* type D enterotoxaemia (pulpy kidney disease), and parasitic gastroenteritis was made.

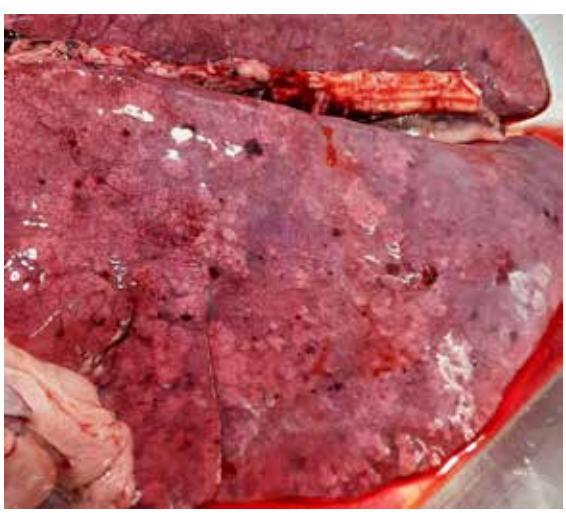

Figure 22: **Multifocal haemorrhages throughout all lung lobes of a lamb. *Bibersteinia trehalosi*, the causative agent of systemic pasteurellosis, was detected. Photo: Denise Murphy.**

Nervous System

Louping ill

The carcase of a six-month-old lamb, with a history of sudden onset recumbency, kicking, and head-banging, was submitted to Sligo RVL. Two further animals from the cohort were found dead. On post-mortem examination, ticks were apparent on the carcase. On histopathology of the brain, there was acute polioencephalomyelitis. Louping ill virus was detected by PCR. Moreover, there was a significant parasitic burden. Louping ill with concurrent parasitic gastroenteritis was diagnosed as the cause of death.

Poisonings

Acorn poisoning

Sligo RVL diagnosed acorn poisoning in two ewes. The animals had been moved to new pasture two days prior to death. One animal was found dead, the other presented with haemorrhagic faeces. Both animals had severe haemorrhagic typhlitis with frank blood clots and swollen pale kidneys. The reticulum and rumen of one ewe contained a large number of masticated acorns. Acorns contain gallotannins which can lead to poisoning.

Miscellaneous

Neoplasia

Sligo RVL diagnosed two cases of neoplasia in two elderly ewes. In the first case, the animal was reported with ill-thrift despite treatment efforts. On post-mortem examination, multiple lymph nodes as well as the spleen were enlarged. The liver was indurated and had a pale mottled appearance. The abomasal folds were hardened and raised. There was a 3cm x 5cm-sized mass in the right lung. *Staphylococcus aureus* was cultured from lung tissue. *A. phagocytophilum* was detected by PCR. On histopathology of several affected organs, there was unencapsulated, poorly circumscribed, densely cellular neoplasms composed of sheets of round cells. These findings were consistent with a lymphoma. The underlying tick-borne fever and *S. aureus* infection were considered secondary.

The second ewe presented with ongoing weight loss. On post-mortem examination, there were severely oedematous ocular mucous membranes. There was ascites and watery intestinal contents. An approximately 60cm longitudinal segment of the intestinal serosa had white, slightly-raised plaques of varying sizes. There was a band of fibrous constriction approximately 5cm in length proximal to this section, and the lumen was narrowed. On histopathology of the section, the serosa of the small intestine was expanded by layers of fibrous stroma (scirrhous reaction), within which there were compressed islands of neoplastic cells. The neoplastic cells were polygonal and appeared to be attempting to form tubular structures (glands). There was invasion into the muscular walls of the intestine. These findings are consistent with an adenocarcinoma.

Horses

Intestinal rupture

Figure 23: **Diffuse faecal soiling of the abdominal viscera due to an intestinal rupture in a foal. Photo: Brian Toland.**

Limerick RVL examined a five-month-old thoroughbred filly foal with a history of colic. Opening into the abdominal cavity revealed diffuse faecal soiling of the abdominal viscera. A full-thickness tear approximately 5cm in length with irregular necrotic margins was revealed in the small intestine. A large number of roundworms (*Parascaris spp.*) approximately 12-15cm in length were noticed free in the abdominal cavity. Histopathology recorded an acute, severe, necrotising, eosinophilic enteritis in the intestine and an eosinophilic hepatitis in the liver, associated with parasitism.

Figure 24: **A full thickness tear with irregular necrotic margins in the small intestine of a foal. Photo: Brian Toland.**

The presence of numerous worms within the abdominal cavity indicated rupture of a heavily parasitised segment

of small intestine. Ascarid worm burdens are highest when foals are approximately five months old and can lead to small intestinal impactions.

Figure 25: **An ascarid worm found in an equine intestine that had ruptured. Photo: Brian Toland.**

Avians

Salmonellosis

A cockatoo was submitted to Limerick RVL for necropsy, gross findings were suggestive of a peritonitis. Testing for avian influenza and *Chlamydia psittaci* returned negative results. *Salmonella enterica* serotype Typhimurium was detected by culture from multiple organs. The PVP and herdowner were provided with information on the zoonotic risk posed by this pathogen. As this is a notifiable agent, these findings were reported to the RVO.

Figure 26: **Colonies of *Salmonella enterica* serotype Typhimurium on blood agar (left) and on Colorex agar, a selective medium for *Salmonella* spp. (right). Photo: Ian Hogan.**