Drought conditions persisting into autumn characterised farming conditions for this quarter. Extended warm evening weather and heavy dews with occasional light rain were ideal conditions for *Pithomyces chartarum* to proliferate, leading to sporidesmin toxicity in ruminants. Many cases presented with photosensitisation. Veterinarians used gamma glutamyl transferase (GGT) concentrations to assess the severity of liver damage. A guide to the level of liver damage is: 100–300 IU/l, mild damage; 300–800 IU/l, moderate damage; and > 800 IU/l, severe. In Hawke’s Bay, a line of two-year-old Angus bulls on good feed was losing condition. The average GGT concentration was 710 IU/l ranging up to 2,640. On another Hawke’s Bay farm, 100 of 760 animals had skin lesions. From 30 animals blood tested, 29 had elevated GGT concentrations ranging from 100 to 2,700 IU/l. In Taranaki problems were widespread. On one farm of 330 cows, 15 were affected and two had died. Blood samples collected from two affected cows revealed GGT concentrations of 1,579 and 2,922 IU/l. There was also hepatocyte damage as glutamate dehydrogenase (GLDH) was elevated (5,450 and 1,289 IU/l; normal 8–41), and severe anaemia. High concentrations of sporidesmin can cause haemolysis. On another Taranaki property 13 Jersey heifers were in poor condition with peeling skin. All 13 were blood sampled and GGT concentrations ranged from 400 to 3,400 IU/l.

Four Friesian weaner heifers on a Rangitikei dairy farm run-off were found dying, 24 hours after injection with an appropriate dose of copper. Eight other animals of the 170 treated were ataxic and staggering. Liver samples examined histologically revealed massive hepatocellular necrosis, suggesting copper toxicity as the most likely diagnosis. Kidney copper concentrations measured 180 µmol/kg (toxic > 160 µmol/kg). The animals had been supplemented with oral copper bullets six months earlier, and until recently had also been fed palm kernel (known to have a copper concentration of 5,450 and 1,289 IU/l; normal 8–41), and severe anaemia. High concentrations of sporidesmin can cause haemolysis. On another Taranaki property 13 Jersey heifers were in poor condition with peeling skin. All 13 were blood sampled and GGT concentrations ranged from 400 to 3,400 IU/l.

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Fifteen autumn-born calves being reared in a Wairarapa calf shed died and 10 more had diarrhoea. Salmonellosis had been a problem on this property the previous spring. Histological examination of small intestine revealed numerous deep microabcesses in the lamina propria associated with neutrophil infiltrates and large numbers of bacteria. Culture of intestinal contents yielded *Salmonella Typhimurium*. Three dairy cows from a herd of 200 in southern Hawke’s Bay were ill with diarrhoea. Culture of faeces from two grew *Salmonella Typhimurium*.

Drought conditions in the summer and autumn compromised stock water sources. Three beef cattle died, and 20 were weak and staggering after drinking the last remaining water from a Hawke’s Bay dam contaminated with a thick algal growth. Histological examination of the small intestine revealed diffuse necrosis of superficial enterocytes and multifocal erosions. Culture of the dam water isolated 13,000 *Anabaena* species per ml and 71,000 *Microcystis* per ml. Cyanobacterial toxicity was suspected as both...
organisms are potentially toxic cyanobacteria. Deaths stopped once the cattle were shifted to another paddock with clean water.

Twenty-five cattle in a mob of 112 weaner heifers from southern Hawke’s Bay had diarrhoea and ill thrift. *Yersina pseudotuberculosis* was cultured from the faeces of two affected calves, confirming *yersiniosis*. Tests for BVD virus and parasites were negative, while serum concentrations of selenium and copper were adequate.

A Wairarapa farmer considered 40 of his mob of 60 weaner Jersey heifers were in poor condition with diarrhoea. The calves had been recently treated with anthelmintics. Serum pepsinogen values were within the normal range ruling out abomasal parasitism. Serum copper concentrations were sufficient but serum selenium concentrations averaged 115 nmol/l (adequate >140 nmol/l).

Selenium deficiency was the most likely cause of ill thrift. In another case in Hawke’s Bay, five Jersey weaners had died and most of the remaining 75 calves were in poor condition. Tests for BVD virus, *Salmonella*, and *Yersinia* were all negative. Serum copper concentrations were adequate but serum selenium concentrations averaged only 122 nmol/l. A further case in the Rangitikei involved eight weaner Friesian heifers from a line of 100 with diarrhoea and ill thrift. Serum selenium concentrations averaged 87 nmol/l.

BVD virus infection is often suspected in an ill thrift problem. A group of three two-year-old Angus heifers from a mob of 100 were losing condition and had diarrhoea. All three had positive BVD antigen ELISA confirming viraemia and most likely mucosal disease.

Nine dairy bull calves from a mob of 100 died over one weekend in Taranaki. Many of the survivors had diarrhoea. Histological examination of the abomasum revealed a severe necro suppurrative and ulcerative abomasitis with numerous nematodes visible, consistent with *ostertagiasis*. In another case in Taranaki, two weaner Friesian steers were found dead, and two were in shock with severe diarrhoea. Postmortem examination showed severe thickening and oedema of the abomasal wall confirmed by histology as *Ostertagia* infestation. Suppurative and inflammatory changes in tissues and vessel walls confirmed widespread secondary septicaemia.

In a group of 19 six- to nine-month-old calves on a North Canterbury farm one was off-colour and losing condition. The calf died and necropsy showed perirenal and retro-peritoneal oedema. The calves had been eating acorns and histologically the kidney had acute tubular necrosis consistent with *acorn toxicity*. On a South Canterbury farm three in a mob of 120 calves died and 32 were depressed and anorexic and had eaten acorns. Histologically, the kidneys had acute tubular necrosis.

On a property in the Bay of Plenty each year several calves became ill thrifty and some died. Postmortem of a euthanased calf showed it was emaciated but no other gross abnormalities were noted. Histology revealed a reaction to parasites in the abomasum and small intestine. The pancreas was not examined. The liver had 228 mg/kg of zinc (reference range 40–60), confirming zinc toxicity. A second property in the Waikato had calves doing poorly, scouring, with dirty tails and drooling saliva. Some were anaemic. One calf euthanised had shallow erosions behind incisor teeth and a green watery scour. The caecum was distended with watery contents. The pancreas was grey and firm. Histology revealed the pancreas had severe generalised interstitial fibrosis with scattered degeneration and necrosis of individual exocrine cells. The pancreatic islets were spared. The exocrine cells had enlarged nuclei and very little granulation in their cytoplasm. The serum zinc levels in 11 calves ranged from 33–160 μmol/l (normal 9–20).

Two nine-month-old dairy calves on the West Coast died. Postmortem of one showed severe enteritis. Histology revealed the abomasum and small intestine had a moderately severe diffuse infiltrate of lymphoid cells and eosinophils throughout the mucosa extending to the submucosa. Occasional mucosal capillaries had endothelial cells with margined chromatin and large amorphophilic intranuclear inclusions. Small arteries in the submucosa occasionally had endothelial cells with enlarged nuclei with margined chromatin and large amorphophilic intranuclear inclusions. Acute adenoviral abomasitis and enteritis was diagnosed.

A two-year-old Charolais cow from the Nelson region had ataxia at six months that progressed over two years. Gluteal muscles were wasted. The property had had other cases. Longitudinal slice of the fixed cerebellum showed a marked atrophy of the rostral and caudoventral folia. Histology revealed marked atrophy with only a few normal folia in the dorsocaudal area. Large areas lacked Purkinje cells and the outer molecular layer was thin and pale staining. The granular layer was less cellular and the white matter was pale. Some areas had pale rounded eosinophilic plaques in both the granular layer and the white matter. Some plaques appeared slightly granular and others vacuolated. There were occasional small foci where the axons appeared demyelinated. ‘Normal’ folia had variable loss of Purkinje cells. The cerebral cortex had moderate numbers of Alzheimer type II astrocytes in the grey matter. Occasional degenerate neurons and pale eosinophilic plaques were seen in the corpus callosum, cerebellar peduncles and in the spinal cord. Between fibres of the heart were frequent mild infiltrates of mononuclear cells, some of which were quite large and had granular cytoplasm (possibly basophils). The muscle nuclei were enlarged and elongated. Scattered Anichov cells were present. Severe chronic cerebellar abiotrophy and chronic myocardiitis was diagnosed. The brain changes appear to be a mixture of a cerebellar abiotrophy with features of Charolais progressive ataxia. Tissues have been sent to Massey University for further investigation.

Four of 63 dairy cows aborted over three weeks. Previous serology and fresh fetal spleen were negative for *Neospora* and BVD antigen and antibody. Histopathology on multiple fixed tissues from an aborted fetus revealed a severe acute necro suppurrative placentitis and vasculitis with intrallesional fungi (presumed to be *Mortierella* spp.), indicative
of fungal abortion. The likely source of the fungi was silage, hay or haylage. Fungal culture of the placenta had mixed growth of Asperillus and 
Mucor spp and yeast, suggesting environmental contamination. 
Mortierella spp are slower growing and may have been overgrown by the contaminating fungi. Further diagnosis would require the ELISA 
IgG serology test for Mortierella.

Sheep

Soon after being allowed to graze a driveway beneath oak trees in 
Hawke's Bay, four of a mob of 700 ewes were found dead and four 
others were weak. At necropsy the livers were hard, pale, shrunken, 
and difficult to cut. Histology revealed this was characterised by 
bilary hyperplasia and fibrosis, hepatic cord atrophy and more 
recent hepaticocyte necrosis. The lesions were chronic but active and 
indicated hepatobiliary toxicity resulting from access to a toxin, 
most likely sporidesmin, over the previous few months.

A mob of 200 well conditioned pregnant ewes on a Waimarino farm 
was being supplemented with parsnips. Ewes were noted staggering 
and became recumbent with their legs stretched out behind them. 
Six died and three others responded to subcutaneous calcium 
treatment. The serum calcium concentration of one affected ewe 
was 1.69 mmol/l (normal 1.95–2.65). Creatine phosphokinase 
was available. Perhaps the bulk of the parsnips in the rumen was 
compromising absorption of calcium.

A mob of 387 ram hoggets in Poverty Bay was examined as part of 
a fertility check. Eleven animals had epididymitis, identifiable by 
palpable thickening of the epididymis. Nine of them were positive 
for brucellosis problem. Older rams had also indicated a high infection rate, confirming a 
enzootic ataxia. It is likely the kid was copper deficient at some stage of gestation, although the copper status at death was adequate.

Goats

A six-week-old Angora kid, one of a group of 15 on a lifestyle block, 
was sacrificed because of chronic congenital nervous disease. The animal had been removed from a South Auckland property as part 
of an SPCA investigation of possible animal neglect. It was reported 
to have nystagmus, occasional fitting, ataxia, and at necropsy had 
hypotropia. Other kids in the group were unaffected. Serum copper 
concentration of the affected animal was 18.4 μmol/l (normal 
11–25) and caprine arthritis-encephalitis ELISA was negative.

Histology revealed malacia of one of the ventral funicular tracts in the medulla, focal demyelination of white matter tracts in the mid-
brain, a non-suppurative meningitis, loss of cells in the granular 
layer and to a lesser extent the Purkinje cell layer of the cerebellum, 
demyelination of dorsolateral tracts and axonal swelling in 
ventrolateral tracts in the spinal cord. The findings are consistent with 
encephalitis. This is an uncommon cause of ovine abortion.

Deer

Seven of a mob of 700 deer in Hawke's Bay died. One animal 
examined by the veterinarian was autolysed and tissues could not be 
examined histologically. Microbiology confirmed a moderate growth 
of Yersinia pseudotuberculosis. Yersiniosis was also diagnosed in a 
case from the Manawatu, when four deer from a mob of 200 died 
and 20 had diarrhoea. Yersinia pseudotuberculosis was cultured from 
the intestinal content, and typical foci of necrosuppurative enteritis 
surrounding dense clusters of bacteria were seen in the small 
intestine lamina propria. In central Canterbury, cases of yersiniosis 
occurred in April and May and animals presented with typical acute 
dysentery and death. On one farm, 15 of a mob of 400 died, and 
on another six of a mob of 150 died. In both cases the intestine had 
typical lesions of Yersinia infection and Yersinia pseudotuberculosis 
was recovered from the intestine in the one case in which culture 
was attempted.

Alpacas

On a Canterbury property, five mixed age adult female alpacas in a 
group of 20 developed acute colic and diarrhoea within two days of 
being put in a paddock containing a pile of old plant clippings. The
animals also had arrhythmic hearts. Treatment had no effect and all died. Examination of the plant material revealed most of it to be macrocarpa but it also contained leaves identified as oleander. The owner had trimmed an oleander bush and deposited the trimmings in this paddock, resulting in the probable oleander poisoning of the alpacas.

**Pigs**

On a 30-sow piggery in Taranaki, a pen of weaners was performing poorly. Three had died and 10 were not eating and had lost weight. Postmortem of one showed a pale carcass with evidence of gastric rupture. A 5 cm diameter area of necrosis in the pars oesophagea had two full thickness ulcers associated with it. Blood was present in the stomach, and the remainder of the gastric lining was oedematous. No weaner feed had been available at the time, so the farmer had substituted finely ground piglet meal while awaiting arrival of the weaner feed. This was the cause of the gastric ulceration.

**Horses**

A liver biopsy was received from a horse with a history of liver disease and which had elevated liver enzymes. There was a mild diffuse infiltrate of eosinophils with slightly higher numbers in portal areas. There were bands of pale amorphous eosinophilic material in the spaces of Disse. In many areas this material had merged together and was accompanied by moderate fibrosis, which had replaced hepatocytes and distorted the normal architecture. There was moderate accumulation of bile within hepatocytes in the worst affected areas. Chronic eosinophilic hepatitis and amyloidosis was diagnosed and special stains confirmed the presence of amyloid.

**Dogs**

One well grown pup of a litter of eight Great Dane cross pups in the Waikato was suspected of having an intussusception. It had fed well at about 11 pm, was crying and unsettled at 4 am and progressed to screaming at 5.30 am. The pup had increased respiratory effort and appeared to have abdominal pain. Nothing was found at surgery. It recovered well but then developed respiratory problems and was euthanased. At postmortem there was white foam present in the trachea and bronchi and the thoracic cavity contained 15 ml of straw-coloured fluid. The lungs were oedematous and did not collapse completely. The liver was slightly swollen and had miliary white foci (approx 1 mm diameter) often with a red centre. The kidneys had multiple small haemorrhages. Histologically the liver had multiple small foci of necrosis with replacement pooling of blood. Many of the surrounding hepatocytes were degenerate and in some the nuclei had marginated chromatin and large intranuclear inclusions. The kidney had multiple foci of necrosis and haemorrhage in the cortex. Acute multifocal hepatic and renal necrosis typical of canine herpesvirus infection was diagnosed.

**Rabbits**

An owner of 11 rabbits in an urban area of Christchurch city lost 10 over about three weeks. The rabbits were between six months and two years of age and were found dead without being noticed ill. One rabbit sent for necropsy had appeared normal in the morning but was dead in the early afternoon. The liver had lesions typical of rabbit haemorrhagic disease.

**Birds**

About 100 birds died from a flock of 20,000 nine-week-old layers reared at a high density on a Manawatu poultry farm. When disturbed, birds began gasping and collapsed. Three that were necropsied each had a blood clot extending the length of the trachea associated with abundant mucus. In some areas a clot of fibrin and necrotic debris adhered to the tracheal mucosa. Histology revealed erosion and ulceration of the mucosa. Clusters of syncytial epithelial cells had sloughed into the lumen of the trachea and many cells contained intranuclear eosinophilic inclusion bodies, characteristic of infectious laryngotracheitis (ILT) herpesvirus infection. There was also a mild pneumonia, hepatitis and nephritis. The deaths eventually stopped, and six weeks later the birds were vaccinated against ILT. About 10 days after vaccination there were another 120 deaths. Liver samples revealed severe necrotising hepatitis suggestive of a bacterial infection. Deaths stopped once antibiotics were added to the feed but no microbes could be cultured from previously collected fresh liver. It is unclear whether the later deaths were related to the vaccination or another infectious event.

Blood and faeces from 19 mixed age and breed kakariki (Cyanoramphus n. novaezelandiae) were examined during a routine disease surveillance screen. Blood smears of two contained small numbers of intra-erythrocytic protozoa (haemoparasites). MAF Biosecurity New Zealand was notified. PCR for avian haemoparasites (nonspecific for Plasmodium, Leukocytozoon or Haemoproteus) was positive in nine birds. Rosemary Barraclough, Massey University Auckland, who viewed a blood smear, and Mike Peirce, at MP International UK, who viewed photographs, both agreed the parasite was 'certainly a strain of Plasmodium relictum or one of the subspecies'.

**Other**

A three-year-old male snake-necked turtle (Chelodina longicollis) was presented with a history of anorexia and depression. The in-house haematocrit was reported as 31%. The leucocyte count on a blood slide was estimated at 8 x 10^9/l, with some atypical mononuclear cells with visible nucleoli or nucleoli remnants. The cytoplasm of these cells was intensely basophilic and had a few azurophilic granules. Many of the erythrocytes contained haemoparasites morphologically resembling Rickettsia spp.

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Cattle

Six of 70 yearling heifers in the Manawatu presented in May with severe bloody scour. Only small numbers of coccidia were present on faecal egg count. Biochemistry on three animals revealed severe uraemia, with urea levels of between 21.0–56.8 mmol/l (normal 2.7–12.3). Hyperproteininaemia was not present, ruling out dehydration as a cause of the uraemia. Acute renal failure resulting from acorn toxicity was considered the most likely diagnosis. In another similar case, a six-month-old calf in the Northern Waikato died after a one-week illness. Postmortem showed moderate diffuse petechial haemorrhages and oedema. Histology revealed a severe tubular nephropathy consistent with acorn toxicity.

Cyanide toxicity was suspected when four cows of a mob of 500 died suddenly while grazing a predominantly white clover pasture in a coastal area of the Bay of Plenty. The cows had recently been walked along the coast from an area where they had been grazing grass and were fed maize silage. Cyanide testing of the new pasture was negative but rumen content from a dead animal was cyanide-positive, suggesting the animals had ingested cyanide while they were being moved. However, examination of the route for cyanide-containing plants has not revealed an obvious source of cyanide.

Bovine abortions were a common reason for submission of tissues to veterinary diagnostic laboratories during this quarter. Neospora infection was a common diagnosis in mid gestation (at 120–180 days), with bacterial and fungal placentitis more common in later gestation (after about 180 days). Abortion from BVD infection of the fetus was diagnosed throughout gestation.

In one typical case of bacterial abortion from the Waikato, four cows aborted over two weeks. Histologic examination of the fetus and placenta from one animal revealed a multifocal suppurative placentitis accompanied by a moderate fetal bronchopneumonia. A pure growth of Arcanobacterium (formerly Actinomyces) pyogenes was cultured from the stomach content. Abortion caused by Arcanobacterium pyogenes was diagnosed.

In another less typical case, a fetus was submitted from a herd in the Northern Waikato with a recent history of diarrhoea and abortions. Histologic examination of the fetus and placental membranes revealed a multifocal suppurative placentitis. Culture of the stomach content revealed a pure culture of Listeria monocytogenes, suggesting this was the likely cause of abortion. Whether Listeria monocytogenes also had a role in the diarrhoea observed clinically is unknown.

Twenty-one calves in the Waikato died within one to two hours of being dosed with 47 ml of a product containing 75 g/l of levamisole. The calves exhibited seizures before death. The calves ranged in weight from 120–180 kg, and thus received a dose ranging from 29 mg/kg (in the smaller animals) to 19 mg/kg (larger animals). The toxic oral dose is considered to be about 24 mg/kg. Histologic examination of tissues from three dead animals revealed moderate pulmonary congestion and oedema. Given the dosages and signs reported, levamisole toxicity was considered the most likely cause of death.

Yersiniosis caused primarily by Yersinia pseudotuberculosis has been an important cause of enteritis and wasting in growing calves this autumn throughout the Waikato. In a typical case, five of a group of 20 animals exhibited severe scour and lethargy with a mild fever of about 39°C. Culture of one of two samples of faeces yielded a heavy growth of Yersinia pseudotuberculosis.

Salmonellosis caused by Salmonella Typhimurium continued to be a common cause of bacterial enteritis in both calves and older animals. In general salmonellosis cases appeared sporadic with no major outbreaks reported this season. In a typical case, an adult cow exhibited marked diarrhoea with dysentery. Faecal egg and coccidial oocyst counts were not significantly elevated. Salmonella Typhimurium was isolated from faeces.

An eight-month-old calf in the Waikato presented with a large mass (approximately 20 x 30 cm) at the thoracic inlet. The calf had severe dyspnoea that was unresponsive to treatment. Peripheral lymph nodes were not enlarged. Histology revealed the mass was composed of sheets of neoplastic round cells. Sporadic thymic lymphoma was diagnosed.

Some cows in the south Waikato were let on to a fresh paddock for grazing. The next day, one cow had died with one other down and at least six animals appearing lethargic. The paddock had fertiliser applied two weeks earlier but because of lack of rain it had not washed in. Blood chemistry on three affected animals revealed markedly elevated urea and creatinine levels. Acute renal failure from fluoride toxicity was diagnosed. Fluoride is considered the major toxic component of superphosphate.

Copper toxicity has been relatively common over the autumn months. Contributing causes include accidental intramuscular injection of copper, accidental overdose with copper supplements or, in some cases, feeding palm kernel, a feed supplement that was used widely during the drought and which tends to have relatively high levels of copper, often greater than 20 ppm on a dry matter basis. In one typical case, five calves of a mob of 17 in the Waikato died suddenly, two days after being injected with copper glycinate. The calves had a slightly swollen liver with pale kidneys. Blood from a live calf revealed marked elevations in AST and GLDH, suggestive of severe hepatocellular damage. Histology on tissues from one animal revealed severe acute periacinar necrosis in the liver with a haemoglobinuric nephropathy affecting the kidneys. Analysis of kidney revealed copper levels of 220 μmol/kg (normal range up to 157), confirming copper toxicity.

Eleven of a herd of 160 cows aborted over a two-week period. Fetuses ranged in age from 18 to 24 weeks of gestation. All the aborting animals were from one group of 80 grazed near a line
of trees of a macrocarpa hybrid, and macrocarpa toxicity was considered the most likely cause of abortion.

Sheep
A property in the Manawatu had lost three two-tooth ewes over two weeks. Over the next two days, two ewes and two ewe lambs presented with a constellation of central nervous system signs, including ataxia, seizures, collapse and opisthotonos. Head tilts and circling were not seen. Histologic examination of four brains revealed a moderate to marked suppurative meningitis with extension in to the adjacent white matter and some evidence of degenerative change affecting the white matter. A suppurative meningoencephalitis was diagnosed in all animals. Listeriosis was considered the most likely aetiology. The losses stopped temporarily but five weeks later several more animals died, exhibiting more classic signs of listeriosis including head tilt and circling. Examination of the brain from one revealed a marked subacute lymphoplasmacytic meningoencephalitis with microabscesses, affecting the brainstem most severely. The findings were typical of listeriosis. Interestingly, these animals had not been fed fermented feedstuffs such as silage or baleage.

Goats
A mob of dairy goats in the Waikato experienced a series of deaths, with eight animals dying after one to three months of wasting. The animals had been regularly drenched and were fed maize silage as a supplement. Of the six ill animals presented to the veterinarian, three had mild to marked hypoalbuiminemia. Histology on one that had died recently revealed a moderate histiocytic enteritis and lymphadenitis, consistent with Johne’s disease. Five of the six animals sampled were positive on Johne’s ELISA.

Deer
Four adult Rusa deer in the Bay of Plenty area died over four days, followed by another two animals over two days two weeks later. Postmortem of one animal showed marked perirenal haemorrhage, accompanied by patchy mesenteric haemorrhage and pulmonary congestion. Histologic examination of tissues, especially the kidney, revealed a marked large vessel lymphocytic vasculitis. Malignant catarrhal fever was diagnosed.

Horses
Several cases of equine strangles were reported during this quarter from the Auckland region and the Manawatu. Affected horses were thoroughbreds and standardbreds from a variety of breeding and racing establishments. Presentation appeared typical, with suppurative nasal discharge an important presenting sign. One horse also had submandibular abscession.

Several cases of larval cyathostomiasis were noted in horses during late autumn and early winter, in the Manawatu and the Waikato. The age of affected horses varied but most were yearling or two-year-olds, with one described as a mare. Presenting syndromes also varied; some animals were found dead and others presented with a more chronic, severe, protein-losing enteropathy. All horses had been wormed regularly and faecal egg counts were negative. Cyathostome preparations of faeces revealed larval cyathostomes were present. Two animals that died acutely had an ulcerative and suppurative colitis with numerous cyathostome larvae embedded in the colonic mucosa. Another animal that died after a longer period of protein-losing enteropathy had a less severe colitis but numerous larvae were embedded in the colon mucosa.

A case of equine abortion was submitted from the Waikato. The placenta had a large grossly visible region of cystic degeneration affecting the cervical star of the allantochorion. Cystic spaces were lined by allantoic epithelium and contained moderate numbers of degenerate neutrophils. Histologically there was cystic allantoic dysplasia, a lesion that has been associated with placentitis. This fits in this case, as the lesion was detected in the region of the cervical star, consistent with an ascending infection.

Dogs
An eight-month-old dog in Wellington had diarrhoea for nine days, which persisted despite metronidazole therapy. Faecal egg counts and tests for Giardia and Cryptosporidium were negative. A heavy growth of Yersinia pseudotuberculosis was cultured from the faeces. Yersiniosis was considered the likely cause of the enteritis.

An eight-week-old puppy in the Bay of Plenty developed acute severe icterus soon after arriving from Northland at its new owner’s premises. The pup had markedly elevated ALP and ALT levels, as well as severe uraemia. When it developed clinical signs of disseminated intravascular coagulation (DIC) it was euthanased. Histology revealed moderate dissociation of hepatocellular cords, with an acute, suppurative, tubular nephritis. PCR on EDTA blood for Leptospira spp was positive, confirming leptospirosis.

Other
Five water buffalo (Bubalus bubalis) of a group of 80 in the south Auckland area developed severe fetid watery diarrhoea and two died. Culture of faeces from four affected animals yielded heavy growths of Yersinia pseudotuberculosis but was negative for Salmonella. Histologic examination of tissues revealed numerous colonies of bacteria present in the superficial mucosa of the small intestine, accompanied by a suppurative enteritis, consistent with yersiniosis.