



## VLA MONTHLY SURVEILLANCE REPORT NOVEMBER 2008

### Highlights

- Outbreaks of winter dysentery in cattle – *The appearance of frank blood in the faeces can cause alarm. An unusual feature of the outbreaks described has been the fatalities which are relatively rare with this condition. This needs to be monitored for any evidence of increased virulence of the causative coronavirus*
- Mycobacterium bovis infection causing respiratory distress in a calf – *Lymphadenopathy or respiratory disease in calves may be the first indication of TB in a herd.*
- Acute fasciolosis widespread, causing losses in sheep and camelids- *Despite the earlier warnings sheep farmers have still been caught by surprise by this disease, suggesting that further knowledge transfer work needs to be done. The use of inappropriate treatments also shows that effective, veterinary supervised, flock health plans are not in place on many holdings.*
- Increase in cases of rumenal acidosis in lambs caused by poor feed management – *Poor management of concentrate feeding reveals a failure of basic husbandry skills in the cases reported.*
- Salmonellosis in pigs caused by Salmonella Typhimurium PT193 and U208- *necrotising colitis was a feature of both phage types.*
- Outbreak of swine influenza in sows – *The failure of these animals to seroconvert may indicate antigenic differences between the field virus and the laboratory reference strain. This underlines the importance of monitoring influenza viruses in the pig population.*

### VLA FARM INVESTIGATIONAL VISITS NOVEMBER 2008

Reason for Farm Visit	Number of farm visits
Animal health & welfare	3
Human & animal health & welfare	10
Human health only	0
Other projects	5

## CATTLE

### ***Reproductive diseases***

#### **Bacillus licheniformis**

Preston diagnosed abortion due to *Bacillus licheniformis* in small dairy herd that had experienced two third trimester abortions. The organism was isolated in pure growth from foetal stomach contents.

#### **Salmonella Kimuenza**

Langford identified *Salmonella* Kimuenza as the cause of a single abortion on a farm which had experienced a single case approximately 15 months previously and it was considered that the infection had persisted sub clinically on the farm since then.

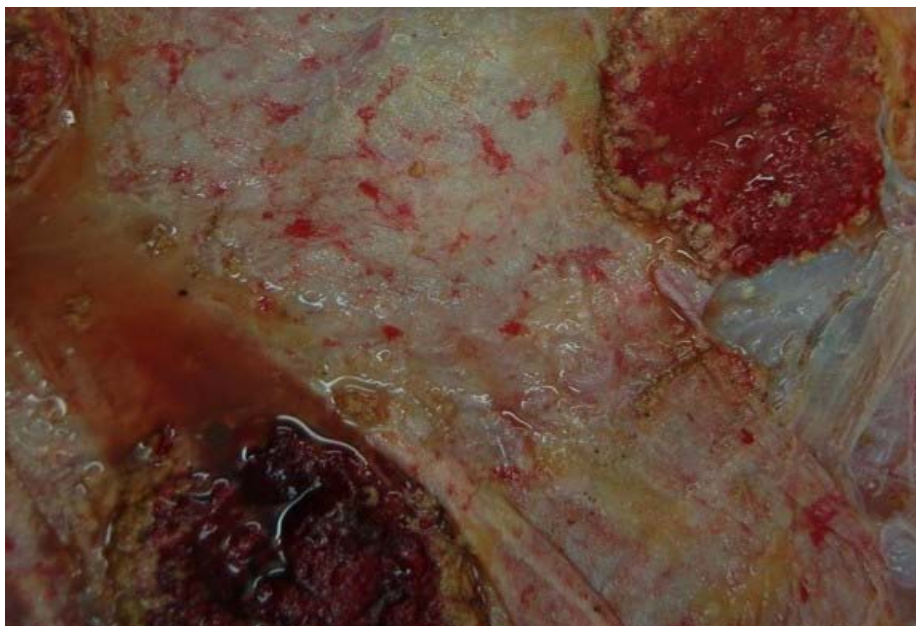
*Salmonella* Kimuenza is an uncommon pathogen and is likely to be associated with contaminated vegetable proteins of eastern origin e.g. palm kernel or rice bran.

#### **Mycotic abortion**

Mycotic abortions in cattle are most often associated with *Aspergillus fumigatus* infection, however, Shrewsbury diagnosed two cases associated with other fungal species. One abortion was in a group of 120 cows where 6 previous abortions had occurred since the summer. The placenta was diffusely thickened and reddened (figure 1) whereas no specific pathology was present in the 18 kilogram foetus. *Rhizopus* species fungi were isolated from the placenta. The second case was in a herd of 130 milking cows with two abortions reported over a 24 hour period. *Absidia* species fungi were isolated from the placenta which demonstrated multi-focal or coalescing necrotic plaques on the cotyledonary and intercotyledonary areas. In both cases diagnosis was confirmed by histopathology which indicated severe necrotising inflammatory reactions associated with penetrating fungal hyphae.

**Figure 1**

**Bovine placental lesions associated with *Rhizopus* spp infection**



## ***Alimentary tract diseases***

### **BVD**

Penrith identified two persistently infected calves on a farm that routinely used BVD vaccine. This possible lack of vaccinal efficacy was reported to VMD.

### **Fasciolosis**

There were numerous reports of fasciolosis associated with a range of clinical presentations which included weight loss, poor body condition, diarrhoea and the textbook "bottle jaw". Both beef and dairy animals were affected.

Leahurst investigated a case involving a 2-year-old Brown Swiss bullock which was very small for its age and had loose faeces. Necropsy revealed fasciolosis with thickening of bile ducts and at least 20 patent adult flukes together with evidence of parasitic gastroenteritis.

Starcross reported nine outbreaks of fasciolosis and in addition identified four cases of rumen fluke infestation (*Paramphistomum cervi*), which has until now been seen only infrequently.

### **BVD**

Bulk milk testing by PCR for BVDV was undertaken on large dairy herd where routine screening of young stock identified higher than expected antibody titres. The herd has a vaccination policy but like many units this is done as an annual booster, a method based on practicality instead of good science. Of the three bulk milk samples tested BVDV Type 1 was demonstrated and cohort testing is now underway to establish if this result represents acute viraemia or the presence of one or more PI's.

### **Coccidiosis**

Coccidiosis due to *Eimeria ellipsoidal*s was diagnosed as the primary cause of ill thrift, malaise and death in three-week-old dairy and dairy X calves, where five had been affected over a few days with two deaths out of a total of 18 calves managed in two groups. *Eimeria ellipsoidal*s is reported to be associated with a more chronic presentation of coccidiosis and frequently underlies non-specific unthriftiness in calves. Findings were suggestive of an underlying management problem and appropriate advice was given.

### **Suspect Winter Dysentery**

An outbreak of dysentery was investigated in a Staffordshire dairy herd. Initially one fattening animal was reported to have developed a bloody enteritis but recovered uneventfully. Subsequently several dairy cows were affected with some developing milk drop. Around 10 of a group of 33 yearling dairy heifers became affected and 2 were unexpectedly found dead the next day. Post mortem examinations revealed identical findings with a dilated haemorrhagic colon in the two animals. Tests for salmonellae, coccidia, BVDV and MCF were negative. Histopathology was unrewarding largely because gut tissue was fairly autolysed. One other yearling animal died soon after the submission of the two carcasses but there were few further problems in the herd. Even though coronavirus was not detected in intestinal content of the two animals examined post mortem, winter dysentery was considered the most likely cause of the outbreak.

Luddington reported two outbreaks of suspected winter dysentery. In one case purchased in-calf dairy heifers were added to resident dry cows, and soon afterwards several heifers developed bloody diarrhoea, in one case

containing mucosal casts. In another outbreak many adult dairy cows developed bloody diarrhoea while housed.

### **Respiratory Diseases**

The role BVD virus can have in precipitating outbreaks of respiratory disease was illustrated by two cases described by Penrith. In the first, four deaths from a group of thirty 2½-month-old calves prompted the submission of two typical cases. *Pasteurella trehalosi* pneumonia was diagnosed but, in addition, both calves were found to be BVD PCR positive.

In the second case, plucks and spleens from three 12-month-old calves were submitted for examination following the death of eight calves from a group of 30 soon after housing. Pleuropneumonia and pericarditis were seen in all cases and *Pasteurella multocida* and *Mannheimia haemolytica* were isolated. Two of the three calves tested positive for BVD virus by PCR.

### **Husk (Dictyocaulosis)**

Dictyocaulosis (Husk) continued to cause cases of respiratory disease, some affecting recently housed cattle. Shrewsbury diagnosed three outbreaks following demonstration of larvae in faeces from animals aged 6 months, 12 months and 2 years. A fourth case was diagnosed by histopathological examination of lung from a 2 year old Holstein Friesian heifer which was reported to have developed sudden onset respiratory distress with frothing at the mouth and died. There was a severe eosinophilic broncho-interstitial pneumonia associated with large numbers of developing *Dictyocaulus* parasites.

### **Laryngeal chondritis**

Carmarthen diagnosed laryngeal chondritis in a two year old heifer, one of nine animals to die of respiratory disease in a 120 cow milking herd. Samples had been received from previous animals and lungworm infection had been demonstrated. Animals had then been treated with a macrocyclic lactone (ML) product. Two heifers died following this treatment, one of which was presented for necropsy. There was extensive bullous and interlobular emphysema in the lungs, and a large amount of subcutaneous oedema in the neck. The larynx itself was swollen with significant narrowing of the airway. Evidence of laryngeal chondritis was found with a discharging sinus at the mucosa overlying the arytenoid cartilage.

### **TB**

A private veterinary surgeon rang the VLA to discuss a calf with respiratory distress due to enlarged submandibular lymph nodes. The farm was located in a four yearly testing parish. A Ziehl-Neelsen smear of a pus swab obtained from the lymph nodes revealed acid-fast bacteria, typical of *Mycobacterium bovis*. The local Animal Health office was notified and a herd TB test was arranged as soon as possible. 55/400 animals were subsequently found to be positive of which only 12 were dairy cows; the remainder of reactors were young stock.

### **Nervous diseases**

#### **Thromboembolic meningoencephalitis (TEME)**

A 5-month-old Holstein-X calf showing nervous signs, sweating and salivation was submitted to Penrith for post-mortem examination which revealed an

excess of meningeal fluid and proteinaceous exudate around the brainstem. *Histophilus somni* was isolated from the brain and histopathological examination showed changes consistent with thromboembolic meningoencephalitis (TEME). A previous case from the same farm earlier in the year had also been suspected on histopathological examination but bacteriological examination of the brain had not been carried out.

## ***Other diseases***

### **Babesiosis**

A positive result in the IFAT test for antibody to *Babesia* was obtained in a blood sample sent to Winchester from a yearling animal with haematuria. The animal was reported to be suffering from a heavy tick burden. Babesiosis had never been reported on the farm previously.

### **Ketosis**

Luddington investigated a small dairy herd of 85 Holstein cows experiencing fertility problems, including poor conception rates. Biochemistry on blood samples collected from four fresh cows revealed Beta Hydroxy Butyrate concentrations above 1.2 in three cows and 1.14 mmol/l in the fourth cow. This indicates widespread ketosis and a weight loss in the cows sampled. A significant negative energy balance post calving is associated with reduced conception rates and it was advised to adjust the transition and fresh cow diets.

### **Hypomagnesaemia**

Two suckler cows in a group of 25 were found dead without showing premonitory signs. Another cow in the group was bright but recumbent and a fourth cow was showing nervous signs. Six blood samples were collected and three of these had very low magnesium concentrations 0.22, 0.19 and 0.34 mmol/l respectively (reference range 0.7-1.3 mmol/l). The three remaining samples all had concentrations below 0.72. Prompt magnesium supplementation was advised. Severe hypomagnesaemia was also diagnosed in a Simmental suckler cow showing nervous signs. She was the only animal in this 100-cow herd that was affected.

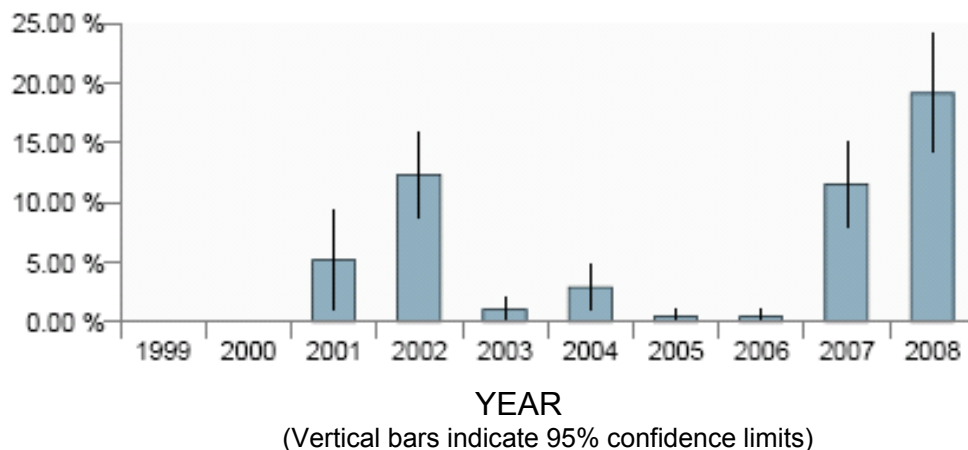
## **SMALL RUMINANTS**

### ***Alimentary tract diseases***

#### **Acute fasciolosis**

There were widespread reports of acute fasciolosis throughout England and Wales resulting in the highest number of affected holdings (CPHH) submitting diagnosable samples to VLA for eight years (47 compared to 35 in 2007). Figure 2 shows the trend as a percentage of affected holdings submitting diagnosable submissions to VLA.

**Figure 2.**  
**Percentage of holdings submitting diagnosable submissions to VLA affected by Acute Fasciolosis Oct-Dec 2001-2008**



Luddington remarked that farmers had been caught out by the sudden onset of mortality caused by acute fasciolosis in apparently healthy sheep in good condition. In one flock of 263 crossbreed animals which they investigated, three sheep had died over three to four days having been found lying on their sides with no signs of struggling. Post-mortem signs were typical of the condition.

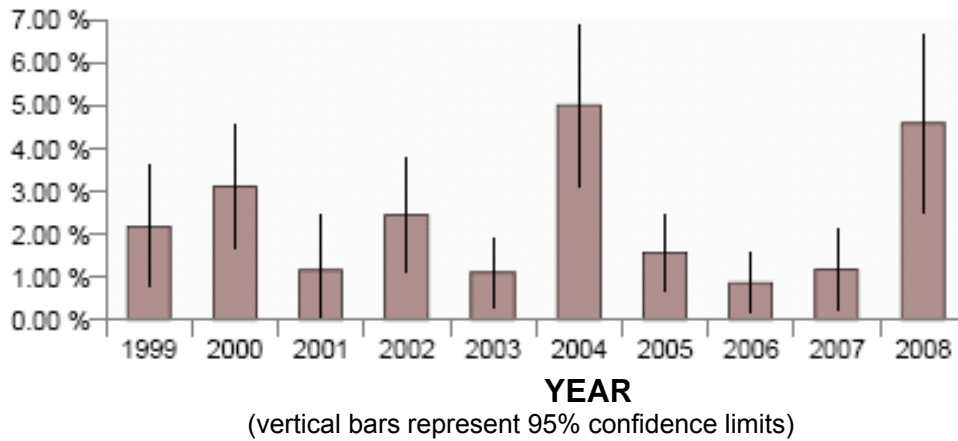
Penrith also reported acute fasciolosis to be an important cause of disease in adult sheep. On some occasions, inappropriate prophylactic flukicide products had been used. Two cases illustrated this point. In the first acute fasciolosis was diagnosed in a group of lambs that had been treated on two occasions in the previous month with oxyclozanide a drug only effective for treatment of chronic fasciolosis. In the second acute fasciolosis and severe abdominal haemorrhage was seen in two ewes that died suddenly. The ewes were in very good condition but 5/700 had died. The group had been treated with Oxyclozanide previously.

Langford reported acute fasciolosis as the cause of sudden deaths in six flocks. The PM findings in all cases were typical with the abdominal cavity containing large volumes of bloody fluid, large friable livers, often with adhesions to the diaphragm and haemorrhagic linear tracking throughout together with numerous pin prick holes in the capsule.

### **Rumen acidosis**

Penrith diagnosed several outbreaks of Rumenal acidosis in fattening lambs on ad-lib supplementary concentrate or cereal feeding. There were similar reports from other Laboratories and there was a statistically significant increase in incidents nationally compared to the previous three years (Fig. 3)

**Figure 3.**  
**VIDA Incidents of Acidosis (as a percentage of diagnosable submissions)**  
**Oct-Dec 1999-2008**



### **Parasitic gastroenteritis**

Cases of parasitic gastroenteritis were frequently diagnosed with *Haemonchus contortus* identified in several cases.

RVC investigated a case in which 9,100 worms predominantly *Haemonchus contortus* were detected [post-mortem in the abomasum of a five-month-old lamb. In addition, 159,000 worms, predominantly *Cooperia* sp. and *Trichostrongyle* sp. were counted in the small intestines. The lamb weighed only 17.2kg and had been treated with an anthelmintic 6-8 weeks prior to death. However, the group of fifteen had been grazing the same paddock since birth, ensuring a heavy pasture contamination.

### **Enterotoxaemia**

The carcass of a nine-month-old ram was submitted to Shrewsbury for post-mortem examination with a history of having been found dead. Ten out of a group of 300 lambs had died in the previous two weeks. No vaccines were administered and the animals had been wormed two months previously. The post-mortem findings included a high *Trichostrongyle* egg count in the faeces of 4,350 and *Clostridium perfringens* epsilon toxin was detected in intestinal contents, which pointed to pulpy kidney disease as the likely cause of death.

### **Respiratory Diseases**

Leahurst investigated two cases, the first involving a six-month-old lamb, one of a group of 200 which died 3 weeks after housing having demonstrated inflamed conjunctivae. Some of the lambs were wormed at housing while others were not. Post-mortem examination revealed 16,700 trichostrongyle worms in the small intestine. Severe fibrinonecrotic bronchopneumonia with haemorrhage and mild fibrinous pleuritis was likely to have been associated with *Mannheimia haemolytica* or *Bibersteinia trehalosi*, although no pathogens were isolated. Large numbers of Dictyocaulus worms were seen grossly in the airways.

In the second a pedigree ewe lamb, one in a group of 24 was found dead. Several lung abscesses were present and *Bibersteinia trehalosi* was isolated. Histopathology demonstrated a chronic bronchopneumonia and chronic pleuritis. Fibrous pericarditis was also present. *Salmonella enterica* s.s. *Diarizonae* was isolated from large intestinal content as an incidental finding.

### ***Other diseases***

#### **Ringworm**

Ovine dermatophytosis caused by *Trichophyton verrucosum* was confirmed in a group of shearling Texel tups which had been due to be sold as breeding rams in the Autumn. Photographs taken by the attending veterinary surgeon revealed multifocal erythematous, crusting sometimes circular lesions with wool loss, mainly affecting the head (Figure 4) and tail regions. Lesions were not reported to be excessively pruritic.

**Figure 4**  
Ringworm lesions affecting the face of Texel ram.



## **PIGS**

### ***Alimentary tract diseases***

#### **Oesophagostomum**

Three adult pigs were submitted from a 140-animal herd comprising of rare breeds where six adult pigs had died in the last month. It was reported that the animals had lost weight but remained bright although they demonstrated

ataxia before death. All were emaciated and some had mild pneumonia and peritonitis, however the consistent finding in all three pigs were very large numbers of *Oesophagostomum* spp. nematode worms in the colon. Oesophagostomiasis is usually considered as a cause of ill thrift and reduced productivity and heavy infestations in the UK are infrequent, at least in housed pigs. However in this case the findings suggested that parasitism was an underlying cause of death, and indicated that a worming programme was required on the farm.

### **Salmonellosis**

Bury diagnosed two outbreaks of Salmonellosis due to *Salmonella* Typhimurium infection. In the first incident, a sample of colon was submitted from six-week-old pigs with diarrhoea, wasting and some deaths; necrotising colitis having been identified in an on-farm necropsy. *Salmonella* Typhimurium phage type 193 was isolated. Forty of 150 pigs on an indoor nursery unit were affected, with 20 deaths.

In the second incident, eight-week-old pigs were affected; wasting, malaise and inappetence were reported in a group of 1,200 Hampshire pigs being reared outdoors from which 20 had died. Sows were vaccinated for PCV2. A chronic necrotising typhlocolitis was identified in two pigs submitted, one of which had a mild polyarthritis and the second had a chronic mild pneumonia. *Salmonella* Typhimurium phage type 208 was isolated from internal viscera as well as the intestines pointing to salmonella septicaemias and PRRS virus was detected in both spleens by PCR. As PRRS virus is immunosuppressive, its presence in these growing pigs was considered significant.

Sutton Bonnington also diagnosed the condition affecting a group of 85 pigs in which 20 had died.

## ***Respiratory Diseases***

### **Influenza**

Swine influenza was suspected on clinical grounds when about 35 of a group of 70 farrowing sows became affected with inappetence, pyrexia and dyspnoea on an indoor breeding unit of 570 sows. The problem later spread to other dry sows and weaners. Approximately 60% of a batch of 700 weaners were reported to be coughing. Sows were vaccinated with live PRRSV, weaners were vaccinated for PCV2 and *Mycoplasma hyopneumoniae*. Two sow plucks submitted to Bury had gross lesions consistent with acute to subacute bronchointerstitial pneumonias with multifocal patchy consolidation suggestive of possible swine influenza virus infection. Two growing pigs were also submitted; one with a severe bronchopneumonia and the other, which was pre-weaned, with a mild multifocal pneumonia, pericarditis and polyarthritis. No swine influenza virus was isolated from these, however, a subacute bronchiolitis was present and immunohistochemistry confirmed active swine influenza infection in the pre-weaned pig and one sow pluck. Paired serology from sows and convalescent sera from growing pigs failed to demonstrate seroconversion or seropositivity possibly due to antigenic differences between field and laboratory strains of the virus. This is being investigated further and attempts to isolate and identify the virus are continuing.

## **PRRS**

Six, six-week old growing pigs were sacrificed to investigate an increased incidence of respiratory disease and mortality in post weaning piglets. The pigs originated from a 450 sow farrow to finish indoor high health status intensive herd. Post mortem examination revealed accumulations of haemorrhagic frothy mucous in the trachea, bronchi and bronchioles. Areas of coalescing petechial haemorrhage were present over the caudal parts of the diaphragmatic lobes of the lungs of all the pigs but with varying severity. The demonstration of PRRSV by PCR in lung tissue together with positive serology indicated a primary pneumonia caused by the virus.

## ***Other diseases***

### **Iron Deficiency Anaemia**

A live moribund piglet aged 7 weeks was submitted to Preston with clinical signs of lethargy and poor condition. Three out of a litter of 10 had been affected with two previous deaths. The affected piglets had lost condition from 3-4 weeks of age. Post mortem examination revealed a slightly rounded heart but no other gross abnormalities. Tests on blood revealed a microcytic hypochromic anaemia and low serum iron (1.8µmol/l – ref range 11-32).

## ***Nervous Diseases***

### **Polioencephalomyelitis**

Further work carried out into an outbreak of porcine neurological disease first reported in the June 2008 monthly report resulted in the demonstration of a virus closely related to porcine enterovirus -8 (PEV-8) as the cause of hind limb ataxia in 8-10 week old pigs. Histopathology had demonstrated a non suppurative polioencephalomyelitis and use of a virus micro-array and subsequent nucleic acid sequencing identified the likely causative virus. Work to further characterise the agent is ongoing. PEV-8 has been associated with reproductive disorders (SMEDI syndrome) and possibly enteritis but not previously with polioencephalomyelitis.

## **BIRDS**

### ***Broiler chickens***

#### **Broiler sudden death syndrome (Flipover)**

The death of 76 birds over two days from a flock of 11,000 broiler chickens prompted the submission of 12 dead birds. All were in good condition and had been eating prior to death. Some of the birds showed ventricles contracted in systole and some had mild hydropericardium. There was no good evidence of infectious disease processes. The subtle post-mortem findings and the clinical history indicated a diagnosis of broiler sudden death syndrome colloquially known as “flip over”. Flip over disease occurs in fast growing broilers, which die quickly following convulsive attacks. Bilateral lung congestion and oedema, consistent with acute “left-sided” heart failure, is a very common finding at PME of birds dying from this disease

### **Broiler Ascites**

The carcasses of two, 12-week-old broiler chickens were submitted following a history of lethargy and death over a two to three day period. The growth rates of all of the birds was better than expected. Post-mortem examination revealed a degree of vent pecking, extensive ascites, dilation of the posterior vena cava and right ventricle. A diagnosis of 'right ventricular heart failure in broilers' or 'broiler ascites' was made.

### **Spiking Mortality Syndrome**

Spiking mortality syndrome (probable hypoglycaemia) was thought to be the main cause of sharp and transient increase in mortality in one flock of 24 day-old broilers. Post-mortem examination findings in most carcasses revealed congested subcutaneous tissue and liver, pale spleens with blood splashes and absence of food in the upper digestive tract. Histological examination revealed numerous lipid droplets demonstrated by Oil Red 'O' in the renal tubuloepithelial cells and myocardial cells. These findings support the possibility of a metabolic problem e.g. hypoglycaemia, resulting in the mobilisation of fat stores as an alternative energy source.

## ***Layer chickens***

### **Spirochaetal enteritis**

Poor production and loss of condition was investigated in a commercial egg laying flock. The possibility of *Brachyspira* infection (Avian Intestinal Spirochaetosis) was suspected, and a range of *Brachyspira* organisms including the pathogenic *B.intermedia* were isolated on selective culture from the caecal contents.

## ***Turkeys***

### **Erysipelas**

Losses of 14 birds out of a group of 90 four-month-old turkeys were described over a three day period. The submitted birds showed purple areas of discolouration of the head skin, excess pericardial fluid, enlarged spleens and a mild catarrhal enteritis. *Erysipelothrix rhusiopathiae* was isolated from various tissues.

### **Pasteurellosis**

Two batches of hen turkeys (17 and 20 weeks) experienced losses. Lesions of unilateral pneumonia were present with an infra-orbital sinusitis in one bird and an airsacculitis. *Pasteurella multocida* was isolated from the lesions.

### **Aspergillosis**

A 5-month-old turkey was submitted to Winchester for post mortem examination with a history of respiratory disease within two groups of 50 birds. Affected birds had been seen sneezing, with swollen sinuses and some clinical improvement had been noticed on antibiotic therapy. Post mortem examination showed an excess of blood-stained mucus within the infraorbital sinuses and nasal chamber. Caseous lesions were present on the air sacs and pleura. The lungs were congested and haemorrhagic. Microbiological culturing yielded *Aspergillus fumigatus* and several bacterial isolates. *Mycoplasma* DGGE testing resulted in the identification of *Mycoplasma gallinaceum* which is normally considered a commensal

organism and may have complicated an underlying mycotic pneumonia and airsacculitis.

### **Ornithobacterium rhinotracheale**

Two turkeys 15 week-old turkeys were received from a 1,500 bird flock with a history of recent respiratory problems. Post mortem revealed marked thickening of the air sacs with congestion of the lungs and oedema of the pleura. No evidence of mycoplasmosis or TRT was detected by serological testing, but an organism subsequently identified as *Ornithobacterium rhinotracheale* (ORT) was isolated from lung and air sac tissue.

## **MISCELLANEOUS SPECIES**

### **Fasciolosis in Camelids**

Preston diagnosed fasciolosis in several small alpaca herds, with varying clinical signs including diarrhoea, malaise and reduced milk production. In one herd, an adult alpaca died approximately 5 weeks after treatment for liver fluke. The cause of death was septic shock due to severe peritonitis. It was thought that death of liver fluke (there was evidence of severe infestation) had led to an inflammatory reaction and then multiple abscess development, one of which had ruptured into the peritoneal cavity.

Langford diagnosed acute fasciolosis as the cause of death of an adult lama. A liver sample was submitted for histology which revealed numerous haemorrhagic tracts flooded with eosinophils with occasional cross sections of fluke.

Acute fasciolosis was also diagnosed in a 2 ½ year old alpaca presented for necropsy at Carmarthen. This was one of two to die in a small herd of nine alpacas.

### **Rumen acidosis in Reindeer**

Two reindeer died following abrupt changes in feed from reindeer pellets to goat pellets and maize. Rumenal acidosis was diagnosed at post-mortem with the rumenal pH reaching as low as 4.4. Blood pH had sunk to 6.9.

## **WILDLIFE**

### **Red Squirrels**

Eight red squirrels (*Sciurus vulgaris*) were submitted from various locations across the North of England. Squirrel pox disease was diagnosed in two. In one of these animals, which had been treated at a veterinary surgery, the lesions were particularly severe and affected the eyelids, lips, muzzle, the left elbow, hock and digits on three paws, the inner thigh and the mucosa of the anus and vagina. This animal also had pneumonia from which *E.coli* was cultured. A third squirrel had enteritis and although coccidia were found in the intestinal content their clinical significance in an adult animal was in doubt. No other enteric pathogens, including adenovirus, were found. Three animals died as a result of road traffic trauma and two animals were the victims of predator attack.

### **Heron**

An emaciated, juvenile female heron (*Ardea cinerea*) was submitted. The bird was dehydrated and had visceral gout, mild pneumonia, abdominal trauma

and no ingesta in the gizzard. The primary condition was probably starvation. Young herons have a significant learning curve when trying to hunt effectively on their own. Many do not make the transition to independence and this would appear to be the case in this bird. Collisions are also relatively frequent, for example, young herons may land on wet roads mistaking them for rivers.