

# CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY OCTOBER, 2019



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# Bovine

Abomasal impaction was diagnosed in five, 3- to 8-year-old beef cows from three different ranches and counties from late June to early August. Three cows were necropsied from one ranch and one each from the two other premises. Multiple animals were affected on two ranches. The abomasal impaction resulted in transmural necrosis and/ or rupture with peritonitis in four of five cows. Dehydration or short chop feed (less than 2 inches) were speculated as possible causes, although neither was confirmed in all five cows necropsied. Cows were on pasture on two ranches, and in a feed lot and fed grass hay chop (1 inch long) on the other. Elevated levels of brain sodium indicating dehydration was detected in three of the five cows.

Hepatic lipidosis and hypocalcemia was found in a 5-year-old, dry lot Jersey cross dairy cow presented for unexpected death after expelling a non-viable term fetus. Three other cows in the dry lot pen had died during the previous two weeks. These cows had been in the dry lot pen on a dry cow ration for an extended period of time. On gross examination the body condition score was 5/5, the liver was pale and had rounded edges, and excessive abdominal fat was undergoing necrosis. Trace ketones were found in the urine. The cow also had marked hypocalcemia. Histopathology confirmed fatty liver.

#### Cystitis and pyelonephritis due to Corynebacteri-

*um cystitidis* caused the death of an 8-month-old beef calf several days after weaning. The calf was slightly off feed and reluctant to move prior to death. The urinary bladder was markedly thick-ened, contained clotted blood and had fibrin and nodular masses over the mucosa. There was also a 2cm long rupture of the bladder wall. The peritoneal cavity contained red fluid, and fibrin over the serosal surfaces. *C. cystitidis* was isolated from the bladder, peritoneum and kidney. *Trueperella pyogenes* was also isolated from the kidney.

#### Virulent Newcastle disease update

While no additional cases of VND have been detected since September 6, 2019, the California Department of Food and Agriculture (CDFA) and the United States Department of Agriculture (USDA) continue VND surveillance and testing to ensure the virus is no longer active in previously infected areas. The **regional quarantine** in Southern California is still in effect until further notice. A map is available on the **CDFA VND website**. Please remain vigilant and report any sick birds immediately to the Sick Bird Hotline, 866-922-2473.

#### Horse

**Right dorsal ulcerative colitis**, likely caused by non-steroidal anti-inflammatory drugs, was diagnosed in a 2-year-old Quarter horse mare. The horse had a history of Banamine administration for an unknown period of time. Testing for other known causes of colitis (i.e., *Clostridium perfringens, Clostridium difficile, Salmonella* spp., and equine coronavirus) was negative. Strongyle eggs were detected in feces, although no intestinal or other lesions compatible with the action of these parasites were observed.



# Lab Locations:

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# Small Ruminant/Camelid

**Coxiella burnettii** was the cause of severe **placen-titis and abortion** in a 3-year-old white-faced ewe that had been 60-100 days pregnant when exhibiting a partially retained placenta. The placenta and serum from the dam were submitted as no fetus was found. Immunohistochemistry was positive for *Coxiella* spp. and the dam serum was seropositive for antibodies to Coxiella.

**Mycoplasma capricolum** was the cause of **mastitis** on a 3,000 head goat dairy. The mastitis problem began after adding newly purchased goats to the herd. Four milk samples submitted were positive by PCR and culture for *Mycoplasma* spp.; one of these isolates was sent for typing and identified as *M. capricolum*.

**Copper toxicosis** was the cause of death of a 1-year-old Hampshire ram from an FFA flock. For the 10 days prior to death, the ram was off feed and isolating himself from the flock. On necropsy, the mucous membranes, fat and serosal surfaces, liver and other organs were bright yellow; the kidneys were gray/black and the urine was dark red. Histologically, typical copper toxicosis lesions of liver necrosis and pigmentary nephrosis were present. Liver copper was 390ppm (normal 25-100ppm) and kidney was 55ppm (normal 4-5.5ppm).

## Pig

Actinobacillus pleuropneumoniae and porcine reproductive and respiratory syndrome virus were the cause of pleuropneumonia and death in two, 10-week-old pigs from a herd experiencing coughing, labored breathing and poor body condition in 25% of the pigs in a group of 400, with 10 deaths. Porcine circovirus was also detected in one of the two pigs.

# **Poultry and Other Avian**

**Runting stunting syndrome** was diagnosed in four flocks of 12- to 21-day-old broiler chicks which were very stunted and had slight increased mortality. The birds had enteritis and pancreatitis; rotavirus was detected in the intestine.

Ulcerative enteritis was diagnosed in 16-weekold Bobwhite quail submitted with a history of 90% mortality over a 1-month long period. At necropsy, necrotic plaques were observed in the small intestine and white focal lesions in the liver. Clostridium colinum and Clostridium perfringens were isolated from livers and intestines by anaerobic culture. Ulcerative enteritis is an acute, highly contagious disease of chickens and quail caused by C. colinum. Sudden onset and high mortality are characteristic, with up to 100% mortality in quail and 10% in chickens. Turkeys, game birds and pigeons may also be affected. The bacterium is very hardy in the environment due to the formation of spores. Predisposing factors include coccidiosis and overcrowding.

**Histomoniasis** was diagnosed in 8- to 13-weekold turkeys on three separate premises in the past month. All affected groups of birds had classic cecal necrosis (cores) and targetoid liver lesions. All flocks had increased mortality. One flock reported weight loss and another reported weak birds unable to roost.

Marek's disease and infectious laryngotracheitis were jointly responsible for the increased mortality in a flock of 10,000, 16-weekold pullets.

**Coccidiosis and necrotic enteritis** were the cause of a sudden increase in mortality of 700 turkey poults during one day in a flock of 3,000 11- to 13-day-old birds.