



UC DAVIS

VETERINARY MEDICINE

California Animal Health and
Food Safety Laboratory System

CAHFS CONNECTION

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HOLIDAY SCHEDULE

CAHFS will be closed on Monday, May 30, 2016 in observance of Memorial Day.

Please contact your laboratory to plan your testing needs accordingly.

Bovine

Blackleg due to *Clostridium chauvoei* resulted in death of 18, 9-month-old, well fleshed Holstein heifers on a dairy over one weekend. Approximately 10 others were showing signs of lethargy on Monday and several more died, but the remaining survived following penicillin treatment. Only one of three pens that housed 250 heifers each was affected despite receiving the same feed, water and housing. Several days earlier all heifer pens had been scraped. None of the heifers on the dairy had been vaccinated against blackleg. One necropsy performed at CAHFS and five of six performed in the field by the submitting veterinarians revealed leg and heart lesions including fibrinous pericarditis and, in one animal, fibrinous pleuritis without pneumonia. Gross lesions, histopathology of skeletal muscle and heart, fluorescent antibody test and culture confirmed *C. chauvoei* infection. Excavation and flooding are risk factors for outbreaks of blackleg, probably by exposing bacterial spores which after ingestion can spread to muscle and lie dormant until muscle damage, such as bruising, occurs.

Bovine herpesvirus 1 (BHV-1) infection was diagnosed as the cause of multiple late-term abortions in a group of beef heifers that had been vaccinated the previous month with a multivalent vaccine containing live BHV-1 virus. Two fetuses submitted were autolyzed and had no gross lesions. Histologic changes consisted of necrosis in the livers, lungs and adrenal glands. Adrenal lesions had intranuclear viral inclusions. BHV-1 fluorescent antibody and immunohistochemistry tests were positive. The vaccination status of these heifers prior to the vaccination was questionable and the BHV-1 component of the vaccine was presumed to be responsible for the abortions.

Equine

Metastatic melanoma was diagnosed in a 15-year-old Warmblood grey mare with a history of anorexia and depression, which was submitted for necropsy. The animal had multiple cutaneous melanomas that had metastasized to multiple internal organs, including liver, spleen, lungs, mesentery, stomach and mesenteric lymph nodes. Approximately three quarters of the liver had been replaced by neoplastic growth.

Oleander intoxication was diagnosed in an 18-year-old draft horse and a dog that died after ingestion of baits placed along a pasture fence line and in a horse paddock. Both animals had colic, decreased gut sounds and arrhythmias. One other horse became ill, but recovered with treatment. The baits had the appearance of a “cookie” and contained oats, shredded apples, carrots, and molasses. The bait material was submitted for testing. Visual inspection revealed very small green leaf fragments throughout the material. Laboratory analysis detected large amounts of oleandrin, the toxin in *Nerium oleander* in the baits. No samples from the affected animals were tested. Local police were investigating the incident as a malicious poisoning case.

Small Ruminant

Abomasal emptying defect was the cause of a six week history of decreased appetite in a 5-year-old Hampshire ewe. At necropsy the ewe had a markedly enlarged abomasum packed with finely ground forage. The cause of this condition is unknown but changes in the autonomic nervous system plexus (dysautonomia) that supplies the abomasum have been suspected.

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Your feedback is always welcome. To provide comments or to get additional information on any of the covered topics or services, please contact Sharon Hein at shlein@ucdavis.edu.

We're on the Web
www.cahfs.ucdavis.edu

Small ruminants (cont'd)

Copper toxicity was diagnosed in a 10-day-old, male Boer goat that at necropsy was severely icteric and had dark red to brown urine, which, together with microscopic lesions was suggestive of a hemolytic crisis. Toxicology revealed elevated copper levels in liver (160 ppm, ref. 25 – 150 ppm) and kidney (25 ppm, 3 – 6 ppm). Copper toxicity in goats is more common in adult animals after prolonged copper overdosing from feed sources. Injected mineral (copper) supplements in goats can also result in acute toxicity. This goat kid had received injected mineral supplements including copper in the previous days.

Pregnancy toxemia was the cause of recumbency in a ewe and sudden death in a Boer cross doe both with near full-term triplets from separate premises. Marked fatty liver and ketonuria were found at necropsy. The size of the pregnant uterus restricts the rumen thus limiting intake of adequate feed in late gestation sheep and goats. The ewe was also markedly copper deficient.

Mammary fibroepithelial hyperplasia resulted in marked unilateral enlargement of the mammary gland, progressing over a 6-month period, in a non-lactating 6-year-old Nubian doe. This condition is most often reported in yearling Nubian does that have not had a pregnancy and is similar to a condition seen in cats. The cause in goats is not known. This doe also had severe copper and selenium deficiency contributing to the signs of rapid weight loss and recumbency in the last month prior to euthanasia.

Other Mammalian

Clostridial typhilitis in rabbits. Multiple deaths occurred among 3-month-old laboratory rabbits that had acute diarrhea. A submitted rabbit, which was in good flesh, had severe acute hemorrhagic typhilitis. *Clostridium sordellii* was identified as the cause of typhilitis, by fluorescent antibody test and immunohistochemistry.

Toxoplasmosis was diagnosed in a wild Jackrabbit that had splenomegaly grossly. Histologically there were disseminated necrotic lesions in the lung, liver and spleen, associated with numerous protozoal zoites, which stained positively for *Toxoplasma gondii* by immunohistochemistry.

Poultry and Other Avian

Folliculitis associated with the fungus *Alternaria sp.* was diagnosed in 43-day-old Pekin ducks from a flock of 19,000 birds which were being condemned at a rate of 10 to 15% at the processing plant due to the presence of red spots in the skin on the ventral surface of the body. Once the diagnosis was made condemnations were negligible but the skin with red spots still had to be removed in approximately 5% of the birds.

Dual infections by *Mycoplasma gallisepticum* and *Mycoplasma synoviae* was made in 37-week-old white-egg-laying chickens from a flock of 8,000 birds. The chickens were experiencing respiratory signs, swollen head, increased morbidity and mortality and decreased egg production. The chickens also had secondary colibacillosis.

Congestive heart failure (dilated cardiomyopathy) was diagnosed in a 1-year-old Faverolle hen which died after a brief period of respiratory distress and diarrhea. Necropsy revealed severe ascites, dilation of the right heart, pulmonary congestion and edema, and firm and fibrotic liver. The cause of this condition is not known.

Proventricular dilatation disease (PDD) was diagnosed in two canaries based on positive immunohistochemistry for Avian Bornavirus (ABV). The two canaries came from an aviary where some of the canaries were experiencing poor feather quality and lethargy. Necropsy revealed severely dilated and thin walled proventriculus in one canary. Histology revealed ganglioneuritis of the gastrointestinal tract, myocarditis, adrenalitis and mild encephalitis in this animal, but not in the other. Interestingly, both canaries had disseminated ABV antigen in many organs even though only one bird had histological lesions of PDD. PDD has been reported to occur commonly in canaries in Europe.