UCDAVIS
VETERINARY MEDICINE
California Animal Health and Food Safety Laboratory System

CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY • JANUARY, 2022

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Holiday Schedule

In observance of Martin Luther King Day, CAHFS will be closed on Monday, January 17, 2022.

Happy New Year from CAHFS

Another challenging year has come to an end and we are proud that despite all the difficulties brought about by the ongoing COVID pandemic, CAHFS has continued to fulfill its mission without interruption. As many of you are probably aware, at the beginning of the COVID pandemic, we were designated an essential service, which meant that we had to be available 24/7 to keep California's animals and food supply safe. This would not have been possible without our outstanding and dedicated employees, the continuous support of the California Department of Food and Agriculture and other state and federal government agencies, and of course, our clients.

We wish you and your animals a safe and healthy new year. Please accept our heart-felt thanks for your continued loyalty and trust in us.

Ashley Hill
CAHFS Director

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Pig

An **inguinal hernia** with intestinal strangulation and infarction was the cause of death of a 3-week-old neutered male piglet. Inguinal hernias occur after castration in some piglets with dilated inguinal canals. Intestines protrude through the inguinal canal and, as in this case, may become strangulated with severe vascular compromise.

Bovine

Dermatophilosis was the cause of skin lesions in 8-10% of recently calved, first lactation Holstein heifers. Severely affected cows lost weight, had reduced milk production and were eventually culled. A submitted 2-year-old Holstein cow, which was 18 days in milk, showed proliferative and ulcerative lesions typical of dermatophilosis in the skin on the dorsal part of the neck, caudal aspect of the mammary glands, medial and lateral areas of the proximal rear legs and the dorsal aspect of the distal regions of all four legs. *Dermatophilus congolensis* was isolated from those lesions. Co-morbidities included severe hepatic and renal lipidosis, abdominal fat necrosis, minimal hepatitis with *Salmonella* group D1 isolated, and very low serum vitamin A (5.5ppm, normal >120ppm).

Lead toxicosis was diagnosed in a 1-month-old nursing Longhorn bull calf from a group of nine animals. The calf was typically inquisitive but demonstrated lethargy, decreased appetite and seemed depressed for 24 hours prior to being presented to the Veterinary Medical Teaching Hospital, UC Davis. Polioencephalomalacia was suspected; however, lead was detected in a whole blood sample at 0.69 ppm confirming lead intoxication. Although the calf was treated with CaEDTA and thiamine, it did not respond and was euthanized. Burned batteries were subsequently found on the property.

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Equine

***Nerium oleander* intoxication** was the cause of death of an 8-year-old Quarter Horse mare with a 3-day history of inappetance, colic, reflux, and cardiac arrhythmias. Main gross necropsy findings were extensive dark-red discoloration on the left ventricular endocardium, and reddened foci in the left papillary muscle. Histologically, these changes corresponded to myocardial degeneration, necrosis, and hemorrhage. The gastric contents were positive for oleandrin, the toxic principle of *N. oleander*. Every part of the plant is very toxic for horses and other animals, even at small amounts.

Small ruminants

Polioencephalomalacia was diagnosed in a female, 3-year-old Nigerian Dwarf goat found lying on her side and twitching. Treatment with injectable Vitamin B complex was started. After three days of waxing and waning neurologic signs and onset of bilateral blindness, the goat was found dead. On postmortem examination, the UV light fluoresced in multiple regions of the brain cortex and, on histology, lesions were characteristic of polioencephalomalacia in ruminants.

Campylobacter abortion was diagnosed in four, late second and early third trimester, sheep fetuses from a flock of 3,000 that had experienced abortions in about 40 ewes. No significant lesions were noted on necropsy but histologically minimal splenic necrosis was found in one fetus and minimal hepatic necrosis was observed in another one. Placentitis with neutrophils and very large numbers of bacteria was observed in two of the cases for which placenta was submitted. *Campylobacter jejuni* was isolated from both placentas, and from the abomasum in all four fetuses.

Lagomorph

Stomach impaction was the cause of death in a 4-week-old, male rabbit kit, which was the third kit in the litter to die without clinical signs. The kit was emaciated and dehydrated, and had a relatively large stomach filled with compact, dry, firm mash feed. Rabbits, and especially the young, are susceptible to stomach or intestinal impaction leading to gastrointestinal stasis and death. Feed pellets available ad-libitum to the kits was the cause of the impaction in this case.

Poultry and Other Avian

Runting Stunting Syndrome was diagnosed in 4- to 13-day-old broiler chicks with a primary complaint of small bird size, lack of uniformity and increased mortality in the flock. Most of the birds were dehydrated and had enteritis. Rotavirus, astrovirus, avian nephritis virus, parvovirus, and reoviruses either alone or in various combinations were identified in the intestine by PCR. A few younger birds also had concurrent yolk sac infections and older birds had colibacillosis which also contributed to the mortality.

Avian chlamydiosis due to *Chlamydia psittaci* was the cause of death in an approximately 5-month-old Yellow-naped Amazon parrot with a brief history of nasal discharge and lethargy. Necropsy revealed inflammation scattered throughout the air sacs, lung, pericardium, heart, muscle, kidney, liver, and spleen. *C. psittaci* was detected by PCR and confirmed by sequencing. This bacteria can cause psittacosis in people resulting in mild flu-like illness or pneumonia. Human infection usually occurs when an individual inhales dust containing dried droppings or respiratory secretions from infected birds.