UCDAVIS VETERINARY MEDICINE
California Animal Health and Food Safety Laboratory System

CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY • MARCH, 2022

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HOLIDAY SCHEDULE

CAHFS will be open, but will have limited services available on Friday, March 25, 2022 in observance of Cesar Chavez Day.

Equine herpesvirus myeloencephalopathy (EHM) in California

Four outbreaks of EHM due to equine herpesvirus type 1 (EHV-1) without the neuropathogenic marker are currently occurring in San Mateo, Riverside, Los Angeles, and Orange counties. There is also a single incident of EHM due to EHV-1 with the neuropathogenic marker in Alameda county. CAHFS is working together with the California Department of Food and Agriculture (CDFA) to support horses, horse owners and industry by daily testing, including weekends and holidays, for regulatory emergency management. Testing at CAHFS is performed by real-time PCR on whole blood and nasal swabs, or by post-mortem examination of euthanized horses followed by real-time PCR.

EHV-1 that causes neurological disease is managed as a regulatory disease. CDFA recommends that:

1. All horses returning from any equine event, even without any disease detection, be isolated and monitored for at least 7 days after the event.

2. All asymptomatic, non-quarantined horses leaving a premises where EHM has been confirmed, be isolated away from all other horses for at least 7 days following departure of the premises. During the isolation period, temperature monitoring twice a day is recommended. In addition, it is ideal that these horses are not allowed to enter a large horse facility or equine event for 14 days following departure from premises where EHM cases occurred.

Additional information on these outbreaks can be found on **CDFA's web site**.

Bovine

Leptospirosis was the cause of **abortion** of first calving heifers in two unrelated dairies. In one of the dairies there were 15 abortions of 8-month gestation fetuses from Holstein heifers during one month. Two fetuses submitted from this ranch were icteric. In the second dairy there were increased abortions at 5- to 7-months gestation in a group of 100 unvaccinated Jersey heifers. A fetus submitted from this dairy was also icteric. All three fetuses were positive for *Leptospira* spp. by FAT. Dam serology in five heifers from the second dairy revealed titers of 1:1600 and >1:3200 to *L. pomona*, and low or negative titers to other serovars.

Histophilus somni multisystemic infection was the cause of death in a 9-month-old Angus steer from a group of 160 recently purchased cattle. Thirteen of these animals had died. Affected animals had respiratory signs and fever of 106-109°F. The submitted steer had several pale areas of necrosis in the heart, a few small abscesses in the heart, lungs, and meninges, anterior uveitis, renal infarcts, and pulmonary edema. Microscopically affected sites had gram negative coccobacilli and *H. somni* was confirmed by immunohistochemistry on brain and heart lesions.

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Lab Locations:

CAHFS – Davis

University of California
620 West Health Sciences Dr.
Davis, CA 95616
Phone: 530-752-8700
Fax: 530-752-6253
daviscahfs@ucdavis.edu

CAHFS – San Bernardino

105 W. Central Ave.
San Bernardino, CA 92408
Phone: 909-383-4287
Fax: 909-884-5980
sanbernardinocahfs@ucdavis.edu

CAHFS – Tulare

18760 Road 112
Tulare, CA 93274
Phone: 559-688-7543
Fax: 559-688-2985
tularecahfs@ucdavis.edu

CAHFS – Turlock

1550 N. Soderquist Road
Turlock, CA 95381
Phone: 209-634-5837
Fax: 209-667-4261
turlockcahfs@ucdavis.edu

CONTRIBUTORS

John Adaska
Javier Asin
Patricia Blanchard
Mohammadreza Ehsan
Carmen Jerry
Robert Moeller
H.L. Shivaprasad
Francisco Uzal
Kate Watson
Regina Zavodovskaya

Equine

Severe **hepatic lipidosis** was the cause of death in a 15-year-old donkey after one week of illness, leading to recumbency with the animal being unable to rise. Blood work showed increased liver and muscle enzymes. On necropsy the animal had abundant fat stores and very pale liver, sections of which floated when placed in formalin.

Pig

Erysipelas was the cause of death of two KuneKune minipigs from separate farms. The first pig presented with a 1-day history of hind limb ataxia, weakness and vomiting. At necropsy the animal had pinpoint to coalescing hemorrhages throughout multiple tissues, and ulcers in the gastrointestinal tract. *Erysipelothrix rhusiopathiae* was cultured from the kidney, urinary bladder, liver, and lung. The second pig had a 3-day history of inappetence and depression prior to dying. Gross findings in this animal included enteritis, orchitis and seminal vesiculitis. *E. rhusiopathiae* was isolated from the urogenital tissues. *E. rhusiopathiae* infection can cause cutaneous erythema, including diamond-shaped lesions, septicemia, arthritis, and endocarditis. Carriers and pigs with acute erysipelas can shed the organism in their urine, feces saliva and nasal mucus for extended periods of time. Transmission may occur directly via the feco-oronasal route.

Small Ruminant

Johne's disease caused by *Mycobacterium avium* subsp. *paratuberculosis* (MAP) was diagnosed in a 16-month-old ewe with a history of loss of wool and poor nutritional condition. The wall of several segments of the small intestine was thickened and corrugated. Histologically, there was granulomatous enteritis with abundant, intrahistiocytic, acid-fast bacilli. MAP was detected by PCR on feces. According to literature, Johne's disease usually occurs in 2- to 5-year-old sheep, but this case illustrates that it may occasionally be seen in younger individuals.

Poultry and Other Avian

***Streptococcus gallolyticus* septicemia** was the cause of elevated mortality (0.6% per day) in a flock of 20,000, 12 and 14-day-old turkey hens. The birds presented with head tremors and were down on their legs and paddling. On necropsy, there was edema and fibrin covering the meninges, splenomegaly, airsacculitis and pericarditis. Microscopically, severe meningomyelitis with bacterial colonies and splenitis were found. Pure cultures of *S. gallolyticus* were isolated from the brain, heart, liver and spleen. *S. gallolyticus* causes a septicemic disease of turkeys and pigeons, which can present with increased mortality without premonitory clinical signs. Splenomegaly and hepatomegaly with fibrinous coelomitis are common gross lesions.

Mycoplasma anatis was the cause of **conjunctivitis** in several ducks. The animals were bright and alert but had severe conjunctivitis, which was the reason for euthanasia. *M. anatis* was isolated from the conjunctiva and identified by sequencing.

Infectious laryngotracheitis (ILT) was the cause of respiratory signs and increased mortality in multiple 34- to 48-day-old broilers, 49-week-old layers and adult backyard chickens that were included in several mostly unrelated submissions. Coughing and conjunctivitis were the most frequent signs. Many submissions had concurrent colibacillosis and infectious bronchitis virus infection. ILT was confirmed by PCR on tracheal swabs. Gross and microscopic lesions typical of ILT were seen in the conjunctiva and trachea.