



**UC DAVIS**

**VETERINARY MEDICINE**

California Animal Health and Food Safety Laboratory System

# CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY • MARCH, 2019



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## HOLIDAY CALENDAR

CAHFS will be open, but will have limited services on Friday, March 29, 2019 in observance of Cesar Chavez Day.

## Fee Increase Reminder

As a reminder, there will be a 10-percent across-the-board increase in laboratory fees and a new necropsy fee structure effective April 1, 2019. The necropsy fee will continue to include gross and histopathology as well as select laboratory testing in microbiology, immunology and toxicology as needed to make a diagnosis.



## Bovine

**Leptospirosis** was the cause of approximately 50 **abortions** in a group of 250 recently purchased first calving Holstein heifers with an unknown vaccination history. Aborted fetuses were 4-7 months gestation. A 6.5-month-old fetus submitted was icteric and immunohistochemistry for *Leptospira* spp. on kidney was positive. Fluorescent antibody test and PCR for the same microorganism were suspicious and negative, respectively. 16 of 18 aborting heifers had very high titers to *L. pomona* and low or negative titers to other *Leptospira* spp. serovars.

**Severe liver fluke disease** was identified in an adult beef cow from Northern California with chronic weight loss and severe fibrosing cholangiohepatitis. The changes were compatible with *Fasciola hepatica* infestation.

**Lead toxicosis** caused neurologic signs and death of a 5-year-old Angus cow. Signs included head pressing, isolation from herd, unwillingness to drink and lie down, and profuse diarrhea progressing to recumbency and death. Histology revealed polioencephalomalacia, renal tubular necrosis and necrotizing placentitis. All are lesions reported with lead toxicosis though placentitis is rare. Liver lead was 43ppm.

There have been recent submissions from feedlots and dairies, of cattle with ***Histophilus somni* infection**. Affected cattle frequently have necrosuppurative myocarditis and/or bronchopneumonia.

## Equine

**Strongylosis and selenium deficiency** resulted in the death of a 7-month-old crossbred filly. The filly had marked weight loss, was unable to open its mouth, swallow or eat, though it could still drink. Pathology findings included atrophy of fat, extensive mineralization and fibrous replacement of tongue muscles. *Strongylus edentatus* larval migration causing hemorrhages and inflammation throughout the parietal peritoneum and underlying muscle causing a partial diaphragm tear. Liver selenium was 0.098ppm (normal 0.3-1.0ppm).

*Continued*





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Food Safety Laboratory System

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

## UPDATE: vND in California

For the period May 15, 2018 through February 22, 2019, the United States Department of Food and Agriculture (USDA) has confirmed 381 cases of virulent Newcastle disease (vND) primarily in backyard exhibition birds of California. Cases have been diagnosed in San Bernardino, Riverside, Los Angeles and Ventura Counties, all in California. One case was also confirmed in Utah county, Utah. Birds from four poultry industry producers in Riverside county and two poultry industry producers in San Bernardino county have also been infected with vND and all birds in those facilities have been or will be euthanized.

On February 27, California State Veterinarian, Dr. Annette Jones, modified Southern California's quarantine area to further restrict bird movement as work continues to eradicate vND. The quarantine mandates the reporting of sick birds and prohibits poultry owners from moving birds in all of Los Angeles County, and in large areas of San Bernardino and Riverside counties. The modified quarantine extends from the northern and southern borders of western Riverside County to the Salton Sea—including the Coachella Valley—and as far east as Yucca Valley in San Bernardino County, with a northern boundary of State Route 58 at the Kern County line. The quarantine language and a map may be found at [CDFA's vND Web site](#).

For more information please refer to [CDFA's web site](#) or call the Sick Bird Hotline at 866-922-2473.

## Small ruminants

**Neosporosis encephalomyelitis** was diagnosed in a 4-week-old Suffolk lamb. The lamb had paresis in the hind limbs, and contracted tendons and abnormal abduction of the right forelimb. Transmission of *Neospora caninum* can be vertical or horizontal (via canids) in cattle, but pathogenesis of infection in sheep is less well known.

**Selenium deficiency** caused the death and **abortion** of a third trimester Boer goat fetus from a herd in which four first-time does had aborted or delivered near term fetuses with cleft palates and small eyes. Although the submitted fetus had no gross abnormalities, there was severe heart necrosis and mineralization, and the liver selenium was very low (0.057ppm, normal 0.25-0.5ppm).

## Pig

**Coccidiosis** was the cause of diarrhea beginning at 7 days of age in eight piglets. Two of the piglets died at 2 weeks of age. The small intestine from one piglet had severe necrosis with intralesional coccidia; rare oocysts were in the lumen and fecal flotation was negative. *Isospora suis* can cause severe diarrhea in 1- to 3-week-old piglets. Testing for coronaviruses, *Salmonella* and Senecavirus was negative.

## Poultry and Other Avian

**Erysipelothrix rhusiopathiae** and **Escherichia coli** were isolated from multiple organs in 34-week-old breeder turkey hens suffering from increased mortality (4-8 hens/day). *E. rhusiopathiae* is a nonmotile, gram-positive bacteria which can be found in contaminated soil and surface water. It is considered a significant pathogen of swine, turkey and sheep, causing bacteremia and increased mortality in production units.

