



UC DAVIS

VETERINARY MEDICINE

California Animal Health and  
Food Safety Laboratory System

# CAHFS CONNECTION

December 2014

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## Holiday Schedule

In observance of the University of California's winter holidays, CAHFS will be closed on **Thursday, 12/25/14** and **Thursday, 1/01/15**.

We will have limited services available (submissions will be received from 8 am—12 pm) on **Friday, 12/26/14** and **Wednesday, 12/31/14**.

Please contact your laboratory to plan your testing needs accordingly as some test set ups will be changed or reduced.

## Bovine

Severe **valvular endocarditis** was the cause of acute death in a 3-year-old Angus cow that was trembling and staggering during a pasture movement shortly before she died. *Streptococcus gallolyticus* (in the *S. bovis* group) was isolated from a heart valve but many Gram negative bacilli were seen but not isolated. On separate premises, *Histophilus somni*, a Gram negative bacilli, was isolated from a large pulmonary artery valve lesion of a 4- to 6-month-old Angus steer from a calf ranch with lesions of right heart failure. *H. somni* also caused septicemia and necrotizing myocarditis and vasculitis in two 7-month-old beef animals on a third premises.

*Mycoplasma bovis* caused **mastitis, cellulitis and arthritis** in a first calf dairy heifer submitted from a dairy which had 8-10 similarly affected animals. Previous culture attempts on this and other animals had been unrewarding. The submitted heifer had severe chronic mastitis involving all quarters with arthritis and cellulitis in one front limb. *Mycoplasma bovis* was isolated from the mammary glands and joints. The pathology was consistent with chronic mycoplasma infection.

## Equine

Severe **degenerative joint disease** of the left coxo-femoral (hip) joint was the cause of progressive left leg lameness and lack of response to treatment over a 9-month period in a 23-year-old Halflinger mare. At necropsy, the left hip joint capsule was markedly thickened by fibrous tissue with bone formation. The joint had severe, chronic, degenerative changes that included loss of cartilage of the femoral head, and osteophytes along the margins of the femoral head and acetabulum.

**Bronchopneumonia** due to *Streptococcus equi* ssp. *zooepidemicus* was the cause of death of a 1-year-old wild burro submitted for necropsy. The burro had multifocal areas of lung consolidation that corresponded to necrotizing and fibrinosuppurative bronchopneumonia with Gram positive cocci on histopathology. Large numbers of *Streptococcus equi* ssp. *zooepidemicus* were isolated from the lung. This bacterium is one of the most important agents of equid bacterial pneumonia. Predisposing factors include, but are not limited to, recent transportation, stress and viral infections. Similar cases were observed in wild burros in the same area in October 2013.

## Pig

*Streptococcus suis* was the cause of severe **meningitis** in a 4-month-old pig. The pig exhibited paddling, vertical nystagmus and fever only a few hours before it died. The head and tissues were submitted and on extraction of the brain, the meninges were cloudy over the cerebellum from which *S. suis* was isolated. *Streptococcus suis* was also isolated from the liver and nasal swab. This pig was the only one affected in a herd of 60 that were housed outdoors.

## Attention Submitters of Porcine Diagnostic Specimens

Beginning December 15, 2014 USDA will pay for *PEDV* and *Porcine Delta Coronavirus* diagnostic testing on only those samples that have a valid premises identification number (PIN). You can obtain a PIN by going to [www.californiaid.org](http://www.californiaid.org) or phone 866-325-5681.

## CAHFS Lab Locations

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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 [slhein@ucdavis.edu](mailto:slhein@ucdavis.edu).

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We're on the Web  
[www.cahfs.ucdavis.edu](http://www.cahfs.ucdavis.edu)

## Small Ruminant

*Campylobacter jejuni* was the cause of third trimester **abortions** in two sheep flocks. Fetuses from both flocks had pneumonia. One flock had near term abortions while the other had abortions occurring 3-5 weeks pre-term. No placentas were submitted so co-infection with Chlamydia or Coxiella could not be ruled out as these agents are limited to the placenta. *Campylobacter* was isolated from abomasal fluid and lung of affected fetuses.

**Copper deficiency** was the cause of **hind limb ataxia** progressing to recumbency over a six week period in a 5-month-old dairy goat kid. Initially the kid exhibited hind leg weakness then began dragging its hind legs before becoming recumbent with severe rear leg proprioceptive deficiencies. On the tissue submitted, liver copper was 1.2ppm (normal 25-100ppm) and serum copper was 0.11ppm (normal 0.8-1.5ppm). Copper deficiency causes demyelination of the spinal cord resulting in progressive ascending ataxia/paresis. Six goats had died and three were sick in a group of 18. The kid also had intestinal coccidiosis.

## Poultry and Other Avian

**Coccidiosis due to *Eimeria burnetti*** was the cause of increased mortality in a flock of over 40,000, 31-day-old, layer pullets. The colon, rectum and ceca were dilated with necrosis, hemorrhage and perforation of the intestinal wall. Histologically, severe enteritis was associated with large numbers of coccidia in the affected intestinal sections.

**Squamous cell carcinoma** of the pharynx and adjacent tissues was the cause of death in a 5-year-old male Buff Orpington backyard chicken. The bird was emaciated, dehydrated and had a history of weakness, ataxia and incoordination prior to death. At necropsy, a large mass infiltrating the mucosa of the pharynx and palate and extending into the muscles of the neck was found and confirmed by histology as squamous cell carcinoma.

**Histomoniasis (Blackhead)** was diagnosed in two turkeys that had severe multifocal necrotic hepatitis and focal ulcerative typhlitis. Cecal worms (*Heterakis spp.*, a carrier of the *Histomonas spp.* infection) were identified in the ceca.

**Pentobarbital poisoning** was diagnosed in two adult turkey vultures found in close proximity in Marin County. One bird was unresponsive after being observed rolling down a hill. Another bird was seen falling from a tree and was uncoordinated and unable to fly when approached. Both birds vomited. The birds were taken to a local wildlife rehabilitation center for treatment. Vomitus was saved and submitted to CAHFS for analysis. Pentobarbital exposure was suspected as the cause of the clinical signs in the two birds, because in previous months, this substance had been detected by gas chromatography – mass spectrometry in samples from other turkey vultures with similar clinical signs. Pentobarbital was found in both vomitus samples, confirming exposure and intoxication. Secondary pentobarbital poisoning of wildlife is a well-documented problem in scavenger avian species such as bald, golden eagles, and vultures in addition to mammalian scavengers such as foxes, coyotes, bobcats, and fishers. Domestic dogs have also been intoxicated. The most common source of exposure is inappropriately discarded carcasses from euthanized animals. Veterinarians and livestock owners have been fined under state and federal statutes when protected wildlife species are poisoned. For additional information, the U.S. Fish and Wildlife Service has a good summary of secondary pentobarbital poisoning of wildlife at [www.fws.gov/mountain-prairie/poison.pdf](http://www.fws.gov/mountain-prairie/poison.pdf). Fortunately, in the described case, both birds were treated successfully at the rehabilitation center and released.

## Announcement

Now Available - Small flock and backyard poultry enthusiasts can find valuable information on poultry diseases, food safety and additional resources at the UC Cooperative Extension Poultry website, <http://ucanr.edu/sites/poultry/>