



UC DAVIS

VETERINARY MEDICINE

California Animal Health and
Food Safety Laboratory System

CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY • JANUARY, 2019



Happy New Year
from all of us at CAHFS!

Inside this issue:

Happy New Year!

Update - vND in California

Rate Changes in 2019

New Submission Forms

A Client's Guide to Submitting to CAHFS

Bovine

- Pyrrrolizidine alkaloid toxicity
- Undiagnosed problem

Pig

- Glasser's disease

Small Ruminants

- Copper toxicosis (sheep)
- Mixed viral/bacterial pneumonia (goat)

Equine

- Umbilical cord torsion

Poultry & Other Avian

- Ornithobacterium rhinotracheale* septicemia (chicken)

Holiday Schedule

In observance of Martin Luther King Day, CAHFS will be closed on Monday, January 21, 2019.

Update - vND in California

As of December 21, 2018, USDA has confirmed 231 affected premises of virulent Newcastle disease (vND) in backyard birds in California: 104 in San Bernardino County, 87 in Riverside County, 39 in Los Angeles County and 1 in Ventura County. In addition vND was detected in a commercial chicken flock in Riverside County on December 15, 2018 via routine surveillance testing and the ranch was depopulated within 24 hours of the confirmed diagnosis. CAHFS continues working with the California Department and Food and Agriculture (CDFA) and the United States Department of Food and Agriculture in the eradication of this outbreak. Biosecurity is paramount to prevent spread of vND.

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

Bovine

Pyrrrolizidine alkaloid toxicity

was the suspected cause of illness and death in a group of 6-month-old Holstein heifers. The affected animals were weak and breathing rapidly. This progressed to incoordination, recumbency and death. At necropsy, some of the animals were icteric and all had very firm and pale livers, which microscopically appeared as severe fibrosis. Further investigation revealed that the animals were fed hay containing a number of weeds including *Senecio vulgaris*, or common groundsel. This plant contains high levels of pyrrrolizidine alkaloids, which are toxins that cause cross-linking of DNA and prevent cell division in the liver. This leads to cell damage and fibrosis, which can progress to liver failure and clinical signs of hepatic encephalopathy, as was observed in this case.



Senecio vulgaris

Pig

Glasser's disease (*Haemophilus parasuis*

infection) was identified in a 3-month-old pig in a large herd with previous mortality. Findings in the submitted carcass were severe fibrinous epicarditis and pleuritis. *H. parasuis* was the only pathogen isolated from the epicardium.

Rate Changes in 2019

Due to the unprecedented increase in rendering costs, effective February 1, 2019 CAHFS will be implementing a disposal fee for most necropsy cases.

In addition, effective April 1, 2019 a new necropsy fee structure and a 10 percent increase will be added to all existing non-necropsy test fees. New rates will be posted to CAHFS' website prior to implementation.

Continued





UC DAVIS

VETERINARY MEDICINE

California Animal Health and
Food Safety Laboratory System

Continued

Small ruminants

A 2-year-old sheep that died suddenly was diagnosed with **copper toxicosis**. At necropsy, icterus and dark urine were suggestive of intravascular hemolysis. The liver and copper levels were extremely high, confirming the sudden release of copper from the liver and causing hemolytic anemia and hemoglobinuria. In this case, the source of the copper was dog food provided *ad lib* to the guard dogs living with the sheep on pasture, and to which the sheep had access. Dog food is typically high in copper, and sheep are exceptionally susceptible to copper toxicity.

Mixed viral and bacterial pneumonia was diagnosed in a 3-month-old goat with severe dyspnea. Necropsy and microscopic examination of tissues revealed severe diffuse bilateral bronchointerstitial pneumonia with multifocal areas of necrosis and focal fibrinosuppurative pleuritis. Caprine arthritis and encephalitis virus infection (CAEV) and *Mann-*

heimia haemolytica infection were confirmed by immunohistochemistry and culture of the lungs, respectively.

Equine

Umbilical cord torsion was the cause of abortion in a 6.5-month-gestation Thoroughbred horse mare. At necropsy, the umbilical cord had three complete twists and measured 60 cm in length. The cord was markedly distended by edema, had large sacculated areas that alternated between congested/hemorrhagic and blanched near the twist, and it was diffusely congested. The presence of blanched areas alternating with congestion and hemorrhage indicates that the twists were tight enough to compromise blood flow. Small round areas of tearing were also observed along the cord surface, presumably secondary to stretching. Umbilical torsion related abortions in horses are most common in fetuses of 6 to 8 months gestation. At this age the fetus is mobile and small enough that size does not limit movement. Umbilical torsions are also more likely when cords are excessively long (greater than 85 cm), which makes this case unusual.

Poultry and Other Avian

***Ornithobacterium rhinotracheale* (ORT) septicemia** caused increased mortality (up to 150/day) and increased water intake in a 48-day-old broiler chicken flock. Affected birds were hesitant to walk and had variable head tilt. Pericarditis, tracheitis, synovitis, and hypopyon were observed at necropsy. ORT was isolated from joints, eye and heart cultures. ORT is typically isolated from respiratory organs; however cases in which joints and the nervous system was involved have been documented.

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 95380
Phone: 209-634-5837
Fax: 209-667-4261
turlockcahfs@ucdavis.edu

New Year, New Submission Forms!

Please visit the Submission Form section on CAHFS' webpage to download and print the latest version of all **CAHFS Submission Forms** (v. 1.11-2018). As part of CAHFS systemwide submission form policy only approved submission forms will be accepted by CAHFS personnel. Please discontinue the use of any older version of the submission form as this may delay sample processing.

A Client's Guide to Submitting to CAHFS

Created by the CAHFS Client Relations Team, **A Client's Guide to Submitting to CAHFS** is an informational packet that provides guidance on sample submission to CAHFS laboratories. You can find information such as hours of operations, payment guidelines, submission form requirements as well as sample packaging & shipping recommendations.

