



UC DAVIS

VETERINARY MEDICINE

California Animal Health and Food Safety Laboratory System

# CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY • FEBRUARY, 2019



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## Holiday Schedule

In observance of President's Day, CAHFS will be closed on Monday, February 18, 2019.

### UPDATE: Virulent Newcastle disease in California

For the period May 15, 2018 through January 30, 2019, the United States Department of Food and Agriculture (USDA) has confirmed 362 cases of virulent Newcastle disease (vND) in California, primarily in backyard exhibition birds. Cases have been diagnosed in San Bernardino, Riverside, Los Angeles and Ventura Counties. vND was also detected between December 14, 2018 and January 31, 2019, in four commercial chicken flocks and in a backyard/non-commercial layer flock in Riverside County, via routine surveillance testing. Three of the commercial flocks and the backyard/non-commercial flocks have been depopulated. Depopulation plans are underway for the fourth commercial flock. The presence of vND was also recently confirmed in a small flock of backyard exhibition chickens in Spanish Fork, Utah. This is the first case of vND in Utah, and is likely traced to the current outbreak of the disease in Southern California.

CAHFS continues working with the California Department of Food and Agriculture (CDFA), the United States Department of Agriculture in the eradication of vND. Stringent biosecurity measures are paramount to prevent spread of vND. For more information, please refer to [CDFA's website](#) or call the Sick Bird Hotline at 866-922-2473.

### Equine

**Bacterial pericarditis** resulted in the death of a 6-year-old Thoroughbred mare that was sick for four days prior to death. The mare had stopped eating and drinking but had no fever. However, the white blood cell count and fibrinogen were very high. On gross examination, the pericardial sac was markedly distended with slightly cloudy yellow fluid and fibrin. The thoracic cavity also contained abundant slightly cloudy yellow fluid (but no fibrin), while the peritoneum had moderate amount of translucent red fluid. *Mannheimia haemolytica* and *Aeromonas popoffii* were isolated from the pericardial sac. It was thought that the restrictive pericarditis resulted in heart failure which led to thoracic and abdominal effusions.

### Bovine

An **undiagnosed problem** has been observed in several beef herds that reported **sudden illness** and **occasional mortality** occurring several days after injection of a multivitamin product with minerals, including copper. Microscopic examination of tissues in two cases revealed severe centrilobular, bridging hepatic necrosis, a change compatible with

copper toxicosis. However, liver copper levels were not elevated and the kidney copper levels, while elevated, were not confirmatory. At this time, the cause for liver necrosis has not been determined but apparent association with the injectable product warrants further investigation.

*Continued*





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## Disposal Fee Implemented

Effective today CAHFS will be charging a disposal fee on necropsy cases. For rate information, please look under [Tests & Fees](#) on CAHFS' web site.

[www.cahfs.ucdavis.edu](http://www.cahfs.ucdavis.edu)

**Mycoplasma bovis systemic infection** was diagnosed in a 6-month-old Holstein heifer with severe multi-organ necrosis. The submitting dairy reported multiple sudden-deaths in animals of the same age group. The carcass was severely icteric and the blood was markedly watery (PCV=13%). Both retropharyngeal lymph nodes and the spleen were markedly enlarged; in addition, the retropharyngeal lymph nodes were necrotic and the spleen was meaty. Histologically, the spleen, retropharyngeal lymph nodes and myocardium had severe necrosis with infiltration of fibrin and neutrophils. *M. bovis* was identified in the spleen and retropharyngeal lymph nodes by culture and/or PCR testing, and in liver and kidney by immunohistochemistry.

### Pig

**Actinobacillus pleuropneumonia** caused the death of three, 6-month-old pigs from a group of 200 on one premises. Two affected pigs had swollen ears prior to death while one had no signs before being found dead. Two pigs submitted for necropsy had severe pleuropneumonia. *A. pleuropneumoniae* was isolated from both pigs, and *Pasteurella multocida* and *Streptococcus suis* from one animal each. Testing for PRRS virus, porcine circovirus and influenza virus was negative.

### Small Ruminant/Camelid

**Mannheimia haemolytica pneumonia and Salmonella D1 septicemia** was diagnosed in a group of neonatal male goat kids on a premises dedicated to purchasing and raising male kids. Clinical signs included diarrhea and coughing. Of five kids submitted for post-mortem examination, four had bronchopneumonia and fibrinous pleuritis. One of these four kids and the fifth animal had *Salmonella* D1 septicemia causing hepatitis and interstitial pneumonia. This fifth kid also had splenitis. The kids were fed unpasteurized cow's milk which may have been the source of *Salmonella* D1 (likely *S. Dublin*). Two of the kids had low copper and cryptosporidia infection. *Bibersteinia trehalosi* was isolated from the lung of one of the kids with pneumonia.

## Autogenous Biologic Products

The USDA Veterinary Services has issued updated regulations on the production, importation, distribution and use of autogenous biologic products, including vaccines. These vaccines must conform to specific requirements, including their use i) only in the herd of isolation of the agent, and ii) for a limited period of time. The level of identification of the strain used for the vaccine is also mandated in these regulations. A NOTICE OF TRANSMITTAL OF ISOLATE TO A BIOLOGIC HOUSE FOR VACCINE PRODUCTION form signed by the veterinarian and owner/agent must also be sent to CAHFS, if the submitter wants us to ship an isolate to a biologic product manufacturer of his or her choice. The bacterin transmittal form and regulations can be found under [NEWS & DISEASE INFO](#) on CAHFS' web site.

## Poultry and Other Avian

**Coccidiosis and crop mycosis** were diagnosed in 5-week-old turkey poults suffering from increased mortality (2.6%/week), depression and poor growth. At necropsy, moderately thickened esophageal and crop mucosal surfaces and dilated small intestinal segments were observed. The lower small intestinal mucosal surfaces were moderately thickened with multiple white foci. Microscopically, large numbers of bacterial colonies and yeast pseudohyphae were observed in the parakerototic crop lesions. Large numbers of coccidial oocysts were observed in the small intestine lumen and villi, associated with mucosal necrosis.

