



UC DAVIS

VETERINARY MEDICINE

California Animal Health and
Food Safety Laboratory System

CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY • SEPTEMBER, 2018



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Holiday Schedule

CAHFS will be closed on **Monday, September 3, 2018** in observance of Labor Day.

UPDATE: Virulent Newcastle disease in California

The effort to contain and eradicate the outbreak of virulent Newcastle disease (vND) diagnosed in California last May continues. CAHFS is working hard with the California Department of Food and Agriculture (CDFA), the United States Department of Agriculture and poultry owners. As of August 24, USDA has confirmed 117 cases of vND in backyard birds in California: 84 in San Bernardino County, 16 in Riverside County, 16 in Los Angeles County and 1 in Ventura County. Please continue to be vigilant about the health of your birds and if you think that your birds may have been exposed to this deadly disease, contact the **California Bird Hotline at 866-922-BIRD (2473)**. More information about vND and the status of the outbreak is available on the [CDFA](#) and [APHIS](#) websites.

Bovine

Clostridial myositis (blackleg) was diagnosed in a 9-month-old Jersey dairy heifer found dead in a group pen one day after a visitor was observed offering heifers oleander branches. Oleander intoxication was strongly suspected. However, the gross examination revealed the muscles of the rump and pelvic limbs were dark and emphysematous. Histology confirmed necrohemorrhagic myositis with intralesional bacteria identified as *Clostridium chauvoei* by immunohistochemistry. This group of heifers had not yet been vaccinated for blackleg. This case illustrates the usefulness of lab confirmation of a presumptive diagnosis.

Tibial hemimelia was diagnosed in a 1-day-old beef calf with cranioschisis of the frontal bone, large caudal abdominal wall hernia, abnormal femoral head and distal condyles, hypoplasia and malformation of the tibias resulting in twisted crossed rear limbs, and a long curly hair coat. The diagnosis was confirmed by genetic testing at Zoetis. This condition is a recessive genetic condition reported previously in Shorthorn, Maine-Anjou, Dexter and Galloway cattle.

Equine

White muscle disease due to selenium deficiency was the cause of sudden death in a 1-day-old Andalusian foal. Severe muscle necrosis was detected in skeletal muscle including the diaphragm. The liver selenium was deficient at 0.078ppm (normal 0.3-1.0ppm).

Pig

Influenza virus caused an outbreak of respiratory disease in a group of ~6-month-old pigs at a county fair. The pigs presented with fever and thumping respiratory sounds, that failed to respond to antibiotics and anti-inflammatory drugs. Clinical signs spread and worsened affecting a total of ~30 pigs and causing the death of at least five animals. Some of the pigs were observed coughing up blood near the time of death. The lungs submitted to the laboratory were mottled pale to dark pink with areas of lobular collapse. Histologic examination revealed multifocal broncho-interstitial pneumonia. Influenza A PCR testing was positive on the lung, and the virus was typed as H1N2.

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Continued

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Small ruminants

Caprine arthritis encephalitis (CAE) virus infection was diagnosed in two commercial dairy goats from a herd of over 200 animals. A 6-year-old Nubian doe and a 4-year-old La Mancha doe were culled due to swollen carpal joints. There had been recent cases of juvenile respiratory disease, *Staphylococcus aureus* mastitis and multiple animals with swollen joints in the herd. Antibodies to CAE virus were detected in both animals and immunohistochemistry detected this virus associated with microscopic synovial lesions compatible with CAE. Lymphoplasmacytic mastitis was also seen in one of the does.

Trichobezoars (hair balls) caused **intestinal obstruction** in a 3-year-old Suffolk ram from a flock of 20. The ram was depressed, off feed, constipated and showed no rumen motility prior to death. At necropsy, a 1cm diameter trichobezoar was obstructing the ileum and resulted in transmural necrosis at the obstruction site. Six trichobezoars were found in the abomasum.

Poultry and Other Avian

Mycoplasma gallisepticum (MG) and cryptosporidia caused tracheitis and sinusitis in 11-week-old turkeys. Shortly after being placed on range, some birds exhibited respiratory signs and mild coughing. At necropsy, three of six birds had excess mucus in the sinuses, trachea and nasal cavity, and two had airsacculitis. MG was confirmed by PCR on tracheal swab pools, and histology revealed lesions compatible with MG infection and also revealed cryptosporidia in sinuses and trachea.

Very virulent infectious bursal disease virus (vvIBDV) was the cause of 25% mortality in a flock of 80,000 10-week-old pullets. At the time of presentation, mortality was up to 2% and birds exhibited droopy eyes. At necropsy, all

birds submitted were mildly to severely dehydrated and one bird had visceral gout. Most of the birds had pale white foci visible on the mucosal surface of the bursa, some had petechiae and a couple had dark red and firm bursas. On cut section, the firm bursas contained hard dry crumbly yellow exudate. Histologically the bursas exhibited lesions highly suggestive of vvIBDV with secondary bacterial colonization. PCR testing of the bursas confirmed vvIBDV. Further investigation revealed that in-ovo vaccination for IBDV had been missed. vvIBDV can be a cause of significant mortality even in vaccinated birds.

FDA enhances antimicrobial stewardship in Vet Med

The FDA has released a statement describing its new efforts directed at promoting judicious use of antimicrobials in human and veterinary medicine to slow the development of resistance to important antimicrobial drugs. The Veterinary Feed Directive implemented in January 2017 resulted in 93 water-administered and 115 feed-administered drugs requiring veterinary oversight for use. Enhanced drug sales data is being collected to estimate use in food-producing animals. FDA will also be providing a 5-year plan which will establish antimicrobial stewardship protocols and accomplish enhanced monitoring for drug use and resistance in both livestock and companion animals. The entire statement can be found on the [FDA website](#).

