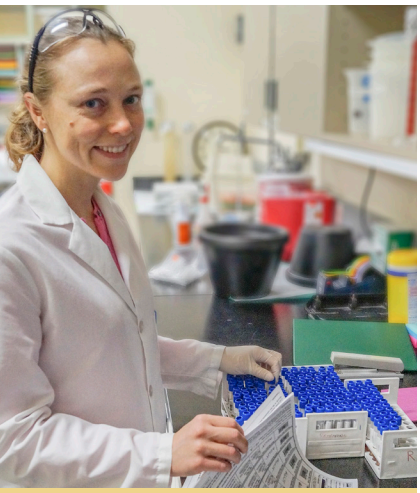
UCDAVIS VETERINARY MEDICINE
California Animal Health and Food Safety Laboratory System

CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY • MARCH 2020



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Holiday Schedule

CAHFS will be open, but will have limited services available on **Friday, March 27, 2020** in observance of Cesar Chavez Day.

vND Update

From Dr. Annette Jones, State Veterinarian:

"After almost 6 weeks with no cases, we found the virus in two additional backyard flocks in the Bloomington area. Both flocks were showing signs of disease and laboratory results suggest that the disease may have been in at least one of the flocks for some time.

It is possible that some birds were moved off of at least one of the properties before our arrival. Moving exposed birds results in more flocks becoming infected. Please observe the following:

- Do not move your birds.
- Do not allow new poultry onto your property without a permit – it isn't worth the risk.
- Call us if you are worried that your poultry may be sick or exposed.
- Continue practicing good biosecurity and protect your flock"

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Welcome Dr. Anibal Armien

CAHFS is pleased to welcome Dr. Anibal Armien to its team effective February 1, 2020. He joined the CAHFS-Davis laboratory as a diagnostic pathologist and will also oversee the Electron Microscopy section.

Dr. Anibal Armien

Dr. Armien received his DVM (1988) from the Federal Rural University of Pernambuco, Brazil and MS (1992) from the University Federal Fluminese, Brazil. He then completed a combined veterinary pathology residency program and doctorate (2000) at Justus-Liebig University, Germany, and received board certification by the American College of Veterinary Pathologists in 2006.

Dr. Armien has broad experience working as a diagnostic and research pathologist in Panama, Brazil, Germany and the U.S. His research interests include expertise in diagnostic, ultrastructural, and wildlife pathology, as well as in infectious diseases of animals.

Equine

Liver rupture and exsanguination predisposed by hepatic lipidosis was the cause of colic and death in a 6.5-year-old Miniature pony stallion. The pony had muscle fasciculations, prolonged capillary refill time and no gastrointestinal sounds. At necropsy, the liver was yellow, swollen with rounded edges, and had a 16 cm tear with an overlying ~ 500 ml blood clot. Six liters of free blood with surface oil droplets were present in the abdomen, and there were excessive internal fat stores, all of which support a diagnosis of hyperlipidemia.

Continued

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Bovine

Oleander toxicosis was the cause of several days of respiratory signs and death in a 22-month-old beef heifer. Two animals had died and three others had respiratory signs in a group of nine. On inspecting the pasture the owners found yard trimmings and suspected exposure to oleander. Postmortem exam was unremarkable and no intact oleander leaves were found in the fore-stomachs. Histologically the heifer had very mild interstitial myocarditis. Testing for oleandrin was positive on liver and rumen content. Severe copper and selenium deficiency was also found.

Small ruminants

Polioencephalomalacia caused stargazing and death in a 2-year-old Boer doe fed leafy alfalfa hay. The goat was treated unsuccessfully the day before it died with thiamine and antibiotics. Tissue lead was not detected and no other risk factors for polioencephalomalacia were identified.

Poultry and Other Avian

Zinc phosphide exposure associated with the death of 12 domestic geese that were found near a city park, a school and a mobile home park, was investigated by the California Department of Fish and Wildlife (CDFW). Three birds necropsied by CDFW were unremarkable; their deaths were believed to have been sudden. Upper gastrointestinal (GI) contents in all three birds consisted of seeds and a granular, greenish material. Phosphine was detected in all three birds' GI samples submitted to CAHFS, which confirmed zinc phosphide exposure/intoxication. The source of exposure was not determined and further investigation is in progress. Zinc phosphide is a rodenticide designed to kill pests such as gophers, ground squirrels and field mice. In an acidic environment (stomach) zinc phosphide releases highly toxic phosphine gas. The lungs are often severely affected and significant lung edema and hemorrhage can be a clue for potential exposure/intoxication. The best samples for testing include stomach/gastrointestinal contents and source materials.

Pig

Swine influenza virus H3N2 was detected in a 3.5-month-old crossbred pig. The clinical signs started with some coughing that turned to coughing up blood the next day, followed by death within a few hours. On postmortem examination, there was bronchopneumonia. Influenza virus was detected in nasal swabs and in the lungs. Porcine reproductive and respiratory (PRRS) virus and *Streptococcus suis* were also detected in the lungs. Influenza virus was detected at a higher load in the nasal swabs than in the lungs, suggesting that nasal swabs can be used to monitor shedding of the virus in live animals. The virus was typed as H3N2 case, a strain previously detected in California. *Streptococcus suis* and PRRS virus were the likely cause of death, even if influenza virus was the primary infection.

NEW USDA EIA TESTING REQUIREMENTS

Reminder that starting April 15, 2020, new USDA requirements for EIA testing will go into effect. Practitioners will be required to use only the most current VS 10-11 EIA form (currently dated Feb 2018), and must complete all fields on the form (or indicate as N/A). Practitioners are also required to have federal Category II Accreditation. Laboratories will be required to confirm accreditation status and ensure completion of the VS 10-11 form prior to accepting samples. To obtain current VS 10-11 forms, contact your CDFA district office.