



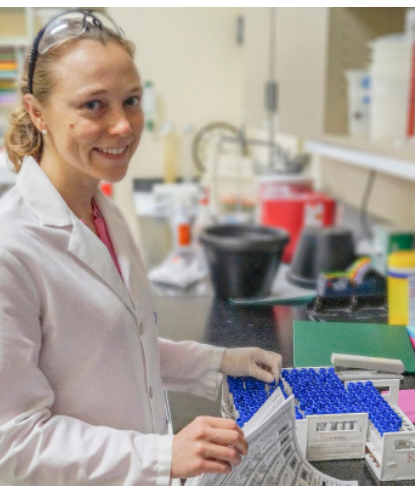
UC DAVIS

VETERINARY MEDICINE

California Animal Health and Food Safety Laboratory System

CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY • SEPTEMBER, 2022



Inside this issue:

- **Highly pathogenic avian influenza in backyard and commercial poultry**
- **New PCR test for *T. foetus***
- **Equine**
 - Tyzzer disease
- **Porcine**
 - Lungworms
- **Small ruminants**
 - Bacterial respiratory disease
- **Poultry and other avian**
 - Gangrenous dermatitis, synovitis and turkey hemorrhagic enteritis
 - Botulism type C in ducks
- **A note about sample submission**

CAHFS will be closed next Labor Day, Monday 09/05

Highly pathogenic avian influenza in backyard and commercial poultry

Highly pathogenic avian influenza (HPAI) has been confirmed in backyard and/or commercial poultry flocks in Butte, Contra Costa, Fresno, Tuolumne and Sacramento counties. HPAI has also been detected in wild birds in northern and central California. The presumptive poultry diagnoses were made by CAHFS in California and confirmed by the National Veterinary Services Laboratory at Ames, Iowa. Virus strains have been identified as **H5N1**, Eurasian lineage goose/Guangdong H5 clade 2.3.4.4b, similar to the HPAI strain circulating across the USA. CAHFS is providing diagnostic services for the State-Federal outbreak response taskforce, the poultry industry, and the people of California through submissions by our state and federal partners. Status updates of the HPAI outbreak can be seen on the California Department of Food and Agriculture (CDFA) webpage (https://www.cdfa.ca.gov/ahfss/Animal_Health/Avian_Influenza.html). A California sick bird hot line has been established at (866) 922-2473. Please contact the sick bird hotline if your flock experiences any unusual/suspicious illness or deaths. The California Department of Fish and Wildlife also recommends that residents report dead wildlife through the online mortality reporting system (<https://wildlife.ca.gov/Conservation/Laboratories/Wildlife-Health/Monitoring/Mortality-Report>), by calling (916) 358-2790, or emailing WILab@wildlife.ca.gov. Avian influenza is a highly contagious and often fatal disease in birds. Poultry owners are urged to increase their biosecurity practices by preventing contact between their birds and other birds, including wild birds. Additional biosecurity tips are available at the CDFA webpage referenced above.

New PCR test for *Tritrichomonas foetus* available at CAHFS

Effective September 1st 2022 CAHFS will offer a **new real-time reverse transcription PCR for *Tritrichomonas foetus***, resulting in a more sensitive assay that no longer requires a 24 hour incubation and eliminates the risk for contaminated cultures that would necessitate repeat collection. Samples may be submitted either cold or frozen.

Cold: Samples are collected into 2mL of either phosphate buffered saline (PBS) or lactated ringers solution (LRS) and kept refrigerated until shipped. Samples must be received cold (40-50°F) at the Davis lab within 5 days of collection.

Frozen: Samples are collected into 2mL of either PBS or LRS and frozen until shipped. Samples must be received at temperature below 40°F at the Davis lab within 7 days of collection.

Sample collection must be performed by a veterinarian certified and registered with the CDFA. Standard procedure for smegma collection by preputial scraping or washing is performed and the sample is transferred into 2mL of either PBS or LRS in a sterile tube using a sterile 15mL screw-top conical tube for transport to the lab. Turnaround time from the date of receipt by the lab is 3-5 days. The price is the same as the current In-Pouch *T. foetus* qPCR. We will continue to offer the current In-Pouch *T. foetus* qPCR assay through the end of October, but will phase it out effective November 1st 2022 and transition entirely to the new assay.





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Equine

Tyzzler disease was diagnosed in two foals from unrelated premises. One foal was found dead and the second was euthanized after presenting seizures, ataxia, dull mentation, and inability to nurse. On postmortem examination, both foals were icteric and had randomly scattered pale miliary foci throughout the liver. Histologically, both foals had severe necrotizing hepatitis with intracytoplasmic argyrophilic bacilli (consistent with *Clostridium piliforme*, the agent of Tyzzler disease). The neurologic foal also had microscopic lesions consistent with hepatic encephalopathy. Tyzzler disease is most common in foals less than 45 days of age.

Porcine

Lungworms were the cause of bronchointerstitial pneumonia and death in two, 3-month-old crossbred feeder pigs from a group of 5 sick pigs. The two pigs submitted had a 3- to 7-day history of difficulty breathing, fever up to 105°F and no response to antibiotics or anti-inflammatories. The lungs were diffusely rubbery and failed to deflate on postmortem examination. Bacterial and viral testing on the lungs was negative.

Small ruminants

Bacterial respiratory disease was the cause of death of two ewes that were found dead in a flock of 380 sheep and 150 goats. Four other sheep were sick. One ewe submitted had severepneumonia with abscesses from which

Corynebacterium pseudotuberculosis was isolated. The second ewe had severe unilateral rhinitis from which *Pasteurella multocida* and *Trueperella pyogenes* were isolated, and secondary aspiration pneumonia.

Poultry and other avian

Gangrenous dermatitis, synovitis and turkey hemorrhagic enteritis (HE) were diagnosed in a 12-week-old commercial turkey flock, which presented with a complaint of down birds with bruising and elevated mortality. Postmortem findings on the 5 birds submitted included edema, emphysema and hemorrhage of the subcutaneous tissue covering the breast muscles, mottled spleens and a cloudy mucoid exudate in the hock joints. Microscopically, there was cellulitis, necrosis of the muscle and reactive spleens. *Clostridium septicum* and *Staphylococcus aureus* were isolated from the subcutis of the breast muscle and joints, respectively. HE virus was detected by PCR on the spleens. This virus has been implicated as a cause of immunosuppression and increased susceptibility to secondary infections in turkeys.

Botulism type C was the cause of death of wild ducks found dead on ponds in San Bernardino and San Luis Obispo counties. Ducks on one pond were observed to have flaccid paralysis prior to death. *Clostridium botulinum* toxin type C was detected in serum (preferred diagnostic sample for avian species) in one duck and liver in the other.

CAHFS has seen an increase in leaking samples over the last few months. To avoid processing delays, please ensure that the submission forms are protected from moisture by enclosing them in a Ziploc/waterproof bag placed on top of the samples inside the box. In addition, please consider adding a copy of the submission form, also in a Ziploc/waterproof bag, on the outside of the box.

