

CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY JULY, 2023



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Holiday Schedule:

CAHFS laboratories will be closed on Tuesday, July 4th in observance of Independence Day

TULARE LABORATORY UPDATE

The Tulare Branch of CAHFS has been performing field necropsies at clients request for several months. We will be winding up this effort with the onset of typical summer weather (temperatures over 95 degrees). We still may be able to perform field necropsies for the next week or two, on days with cool mornings, so please continue to call the laboratory to inquire about the service (559 688 7543). We anticipate a hard stop on field necropsies sometime in early July. After that point, please call the laboratory for advice and guidance we may provide on necropsy cases.

Vesicular stomatitis outbreak

California is no longer the only state affected by vesicular stomatitis virus (VSV) after the state of Texas reported a positive equine case in the southern county of Maverick on June 15. VSV in California is still confined to the southern part of the state, with cases detected in 6 counties: San Diego, Riverside, San Bernadino, Orange, Los Angeles, and Ventura. California has identified 113 affected premises (39 confirmed positive, 75 suspect). Affected species included horses (101 premises), cattle (2 premises), and rhinoceros (1 premises). VSV is transmitted by insect vectors (primarily biting midges, black flies, and sand flies) and because antibodies against VSV are not protective, no vaccines are currently available to prevent the disease. Unfortunately given this lack of immunity following infection, previously infected animals that recover from VSV infection can be re-infected if the virus and the fly vectors remain present in the area. Preventive measures focus on ongoing aggressive vector control, including use of aerosol insecticides according to label instructions, emptying standing water sources, and frequent removal of fly attractants such as manure piles.

Heat recommendations

High temperatures can cause heat stress in livestock. When temperatures are above 100°F, minimize additional animal stress by limiting animal handling to early morning hours, limiting the length of time animals spend in headlocks or other handling equipment, avoiding hauling animals or reducing the number of animals in the trailer, providing shade, ensuring plentiful water, and holding off on vaccination or (if necessary) vaccinating at night, six hours after peak daytime temperature. For more details please see

https://cahfs.vetmed.ucdavis.edu/sites/g/ files/dgvnsk2461/files/files/page/Heat_ stress_2017.pdf



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Bovine

Polioencephalomalacia was the cause of neurologic signs in 4- to 7-month-old crossbred calves on a 700-head calf ranch. More than 10 calves exhibited variable signs including circling, head pressing, recumbency and blindness over a 2-week period. Two Angus-Holstein cross calves subjected to field necropsy had multifocal pallor or slight yellow discoloration of cerebral cortical gray matter. The affected gray matter auto-fluoresced under UV light and together with typical microscopic lesions confirmed the diagnosis of polioencephalomalacia. This is the terminal stage of a variety of cerebral insults or disease syndromes in ruminants, with reduced thiamine level or excess sulfur in feed/water being common causes.



Calf brain under UV light. Autofluorescence in cortical gray matter (blue/white curved lines) is characteristic of polioencephalomalacia.

Porcine

Senecavirus A (SVA) infection was the cause of lethargy, loss of appetite and severe ulcerative lesions around the coronary band of all feet in a 1-yearold potbelly pig. SVA was detected by RT-qPCR on coronary band swabs. SVA is an RNA virus that may cause vesicular lesions and ulceration in the snout, oral mucosa and coronary band of pigs. SVA infection is a differential diagnosis for foot and mouth disease and other vesicular diseases, including vesicular stomatitis (VS), and it is therefore of particular interest during the current California VS outbreak. Cases are handled as a foreign animal disease investigation.

Small ruminant

Cervical spinal cord meningeal abscess was the cause of clinical signs leading to euthanasia of a 5-year-old goat doe with a 4.5-month history of weakness progressing to inability to stand.

A chronic 2.5cm x 4cm meningeal abscess was present on the dorsal aspect of the cranial cervical spinal cord causing cord compression. *Streptococcus sp.* was isolated from the abscess. The initial site of entry of the bacteria was not determined.

Rabbit

Duodenal obstruction caused the death of a 5-year-old domestic rabbit. At necropsy, there was gastric dilation and stasis associated with obstruction of the proximal duodenum by a hairball. The obstructed segment had segmental, full thickness pressure necrosis around a 3cm x 1cm, bullet-shaped, dense mat of hair. The duodenum is one of the most common points of intestinal obstruction in rabbits.

Other avian

Pigeon rotavirus was the cause of clinical signs in adult breeder pigeons from a 700-bird squab operation. Affected birds exhibited vomiting, green droppings and lethargy for 2 days. Necropsy of 3 birds revealed congested livers, enlarged spleens and yellow watery intestinal contents. Histopathology identified hepatitis, pancreatitis and enteritis. Rotavirus type A was detected by PCR in pooled liver samples.

