UCDAVIS VETERINARY MEDICINE
California Animal Health and Food Safety Laboratory System

CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY • JANUARY, 2024

Inside this issue:

HOLIDAY SCHEDULE

Closed Mon Jan 1, 2024 for the New Years Holiday.

Closed Mon Jan 15, 2024 for Martin Luther King Day

Happy New Year from CAHFS Systemwide!

Starting January 1, 2024, CAHFS is transitioning to a new accounting and payment system.
Please remit payments to:
CAHFS
P.O. Box 744833
Los Angeles, CA 90074 - 4833

For credit card payments please call: 530-564-2631
For all other inquiries please call: 530-752-8700
Your patience during this transition is appreciated.

Courtesy of SoCal Double D Farm

Bovine

Bacterial pleuropneumonia was diagnosed in a 6-month-old Angus steer with a history of foaming at the mouth, nasal secretion and not eating. Fifty animals in a herd of 7,000 had died over the past month. On gross examination, ~75% of the lungs were mottled pink to red and purple. There was clear yellow watery fluid in the thoracic cavity and abundant fibrin adhered to the parietal and visceral pleura. Histologic findings were consistent with necrohemorrhagic pleuropneumonia. *Mycoplasma bovis*, *Histophilus somni* and *Pasteurella multocida* were isolated from the lung.

Blackleg was the cause of death of a yearling Angus-cross heifer. The heifer was one of five cattle that died in a 24-hour period with no clinical signs observed. At necropsy, the heifer had a focally extensive region of muscle necrosis and hemorrhage with overlying subcutaneous emphysema in the left thigh. Blackleg is caused by the bacterium *Clostridium chauvoei* growing in muscle. *C. chauvoei* was detected by culture and fluorescent antibody test in affected muscle. The bacteria are ingested while grazing, penetrate the intestinal wall, and are carried via the bloodstream to muscle where they lie dormant as spores. When some event causes hypoxia or anaerobic conditions (e.g., a bruise) the spores germinate and produce toxins with local and systemic effects, usually resulting in rapid death.

Avian

Clostridium septicum was the cause of **gangrenous dermatitis**, **osteomyelitis** and **synovitis** in 40-day-old broiler chickens experiencing increased mortality, lethargy and ruffled feathers over 3 days, in a flock of 13,000 birds. Eight birds submitted had skin scratches, 4 had hemorrhagic cellulitis and 2 had osteomyelitis in the proximal tibia and synovitis in the tibiotarsal joint. *C. septicum* was isolated from subcutaneous tissue, and large gram-positive rods compatible with *Clostridium* spp. were seen in the bone and joints.

Small Ruminants

Salmonella Typhimurium and *Cryptosporidium* spp. caused severe watery and hemorrhagic diarrhea in goat kids on a goat dairy farm experiencing 65% mortality in 3-5-day-old kids. Histology revealed necrotizing gastroenteritis and hepatitis compatible with *Salmonella* spp. infection. Cryptosporidia were observed on the superficial intestinal epithelium. Salmonellosis is uncommon in goat kids in California; in young animals, it often follows poor colostrum intake and poor hygiene. It is also more common in goats that are housed on dairy cattle facilities. Cryptosporidiosis is common in this species.

UCDAVIS
VETERINARY MEDICINE
California Animal Health and Food Safety Laboratory System

Lab Locations:

CAHFS – Davis

University of California
620 West Health Sciences Dr.
Davis, CA 95616
Phone: 530-752-8700
Fax: 530-752-6253
daviscahfs@ucdavis.edu

CAHFS – San Bernardino

105 W. Central Ave.
San Bernardino, CA 92408
Phone: 909-383-4287
Fax: 909-884-5980
sanbernardinocahfs@ucdavis.edu

CAHFS – Tulare

18760 Road 112
Tulare, CA 93274
Phone: 559-688-7543
Fax: 559-688-2985
tularecahfs@ucdavis.edu

CAHFS – Turlock

1550 N. Soderquist Road
Turlock, CA 95380
Phone: 209-634-5837
Fax: 209-667-4261
turlockcahfs@ucdavis.edu

CONTRIBUTORS

Javier Asin
Pat Blanchard
Todd Cornish
Seana Fitisemanu
Omar Gonzales
Eileen Henderson
Ashley Hill
Veronica Nguyen
Robert Moeller
Raul Resendiz
Simone Stoute
Francisco Uzal

Equine

A **large colon torsion** resulted in several days of recurrent colic in a 15-year-old Warmblood mare. The torsion involving both the right dorsal and ventral colon was approximately 360 degrees clockwise when viewed from behind the animal. The condition, also called colonic volvulus, is one of the most common and grave causes of colic in horses. Colonic torsion is life-threatening because of severe vascular compromise leading to tissue ischemia, and, occasionally, gastric or colonic rupture associated with intestinal obstruction. The cause is not known.

Lagomorph

Myxomatosis affected a group of 10 rabbits housed outdoors. Seven rabbits died over one week and three were euthanized due to poor health status. One rabbit submitted for necropsy had markedly swollen eyelids and prepuce, and gelatinous and translucent subcutaneous edema. Histologically, the base of the ears, nostrils, prepuce and eyelids showed severe lesions with intracytoplasmic eosinophilic inclusion bodies compatible with myxomatosis. Poxvirus viral particles were detected by negative staining electron microscopy. Myxomatosis virus causes lethal and generalized disease, primarily in European rabbits.

Wildlife

Two **Mallard ducks** from a die-off in a park's lake tested positive for **type C botulism**. The submitter reported that approximately 40 birds had been found ill or dead in the area over a month, with a recent cluster of 13 casualties in a single day. The birds that were not dead were unable to stand or lift their heads. On necropsy, one of the ducks had mildly distended esophagus and proventriculus that were packed with ingesta, but no other significant gross lesions. Liver from both animals was used to confirm the diagnosis.

CAHFS is one of the few laboratories nationwide that is able to perform diagnostic testing for botulism. In birds, the preferred sample types are serum, gastrointestinal content, and liver, in decreasing order of sensitivity.

CAHFS is Hiring!

Davis Lab

SRA 3 (Confirmation Chemist) (61929)

Responsible for the performance of organic analysis for the determination of xenobiotic residues in biological specimens. Responsible for participating in the update & development of analytical procedures, quality control procedures, & Standard Operating Procedures (SOPs).

Careers (universityofcalifornia.edu)

Blank Asst 3 (Executive Office Admin Assistant)

Provide high level communication and administrative support to CAHFS Administration Office. Responsible for departmental communications, reports, newsletters, website content and promotional materials. Provide reception, scheduling, travel, and purchasing assistance; serve as Davis laboratory space and conference room coordinator. Provide backup support for departmental academic personnel activities for approximately 30 faculty and resident positions including recruitment and merit/promotion/appraisal activities and facilitating visas for department's foreign nationals. Provide backup support for contract and research grant processes including budgeting, submission, and reporting.

Careers (universityofcalifornia.edu)