UCDAVIS
VETERINARY MEDICINE
California Animal Health and Food Safety Laboratory System

CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY • JULY, 2022

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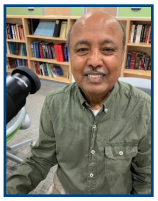
There is a NEW immunohistochemistry submission form. More details on our website

HAPPY RETIREMENT!

In June 2022, CAHFS said good-bye to two valued members of our team.


Dr. H.L. Shivaprasad

Dr. H.L. Shivaprasad is retiring from CAHFS effective July 1. Dr. Prasad joined the CAHFS Fresno lab in April 1989 and then 'migrated' south to Tulare in 2009, when the Fresno facility was closed. A world- renowned avian pathologist with a particular interest in diseases of the eye, Dr. Prasad was always willing to work with students and visitors from other lands to pass on his wealth of knowledge. After visiting many countries in his travels to share his knowledge, Dr. Prasad had contacts and friends all over the world. Please, join us in wishing Dr. Prasad the best as he begins the next chapter of his life entitled 'First Time Grandpa.'


Ms. Sharon Hein

Ms. Sharon Hein, Administrative Officer with CAHFS Davis, is retiring at the end of June 2022, after almost 40 years of loyal service to CAHFS and UC Davis. Sharon has been with the laboratory from the very beginning, and has worked tirelessly behind the scenes on myriad activities for many years. Amongst her countless and outstanding contributions to CAHFS, she has been the managing editor of CAHFS Connection since its creation in 2011. Her hard work, attention to detail and gift for artistic presentation have made the newsletter a roaring success month after month for many years. She really will be missed. Please join us in wishing Sharon a well deserved retirement. Thank you Sharon; your shoes will be impossible to fill!

Bovine

Listeriosis was the cause of **abortion** of two, third trimester dairy bovine fetuses. The dairy had a history of several cows found open at re-confirmation examination for pregnancy. Large numbers of bacteria were observed microscopically in several organs of both fetuses. *Listeria monocytogenes* was isolated in rich cultures from lung and abomasal fluid of both fetuses.

***Yersinia pseudotuberculosis* enterocolitis** resulted in the death of a 3.5-month-old Holstein calf following a 3-week history of diarrhea. The dairy reported persistent diarrhea in a few 3- to 4-month old calves, which died 2-3 weeks after onset of signs. Previous testing of feces from diarrheic calves failed to identify *Salmonella* spp. or coccidia. The calf necropsied on the farm had enlarged mesenteric lymph nodes, and watery content in the small intestine and colon. The intestinal mucosa was thickened and reddened; scattered white foci were present on the cecal mucosa. Histopathology identified chronic enteritis compatible with *Yersinia* spp. infection. *Y. pseudotuberculosis* was isolated from the small intestine. This is an occasional enteric pathogen in cattle and small ruminants. The infection occurs mainly during cool months, often causing weight loss and diarrhea, and it may be associated with increased rodent populations.

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Porcine

Porcine deltacoronavirus was the cause of **diarrhea**, vomiting and gaunt appearance in two, 1-week-old piglets submitted from a farm where 180 piglets were also sick but none had died. Both piglets had milk in their stomach and watery content in the colon. Histology revealed enteric villus atrophy, which is typical of viral enteritis. Porcine deltacoronavirus was detected by PCR on small intestinal content in both pigs, and group A rotavirus was also detected in one of them. Transmissible gastroenteritis and porcine epidemic diarrhea viruses were not detected by PCR.

Equine

Intestinal adenocarcinoma caused intestinal obstruction **and secondary gastric rupture** in a 25-year-old Arabian gelding with a 1.5-month history of colic. The wall of the mid to caudal jejunum was focally thickened by a firm, tan mass, which almost completely blocked the intestinal outflow, and the oral segments of small intestine were markedly distended. The neoplasm was a scirrhous, highly infiltrative, mucin-producing, tubular to acinar proliferation of epithelial cells, and had produced metastases to the liver and mesenteric lymph nodes. Intestinal adenocarcinoma is uncommon in horses and it seems to affect predominantly the small intestine.

Small ruminant

***Coxiella* spp. placentitis** was the cause of near-term abortion of twin crossbred lambs in a flock where 15 of 25 pregnant ewes had aborted late term, undersized fetuses. The placenta submitted was diffusely thickened and opaque, and had tan plaques on the intercotyledonary regions; the cotyledons appeared dark red and thickened. Histologically, the placental changes were compatible with *Coxiella burnetii* infection; immunohistochemistry for this microorganism was positive. Fetal blood was positive for *C. burnetii* antibodies by ELISA.

Poultry and other avian

***Avibacterium avium* infection associated with polyserositis was diagnosed in poultry**. Pure cultures of a bacterium closely matching *A. avium* have been isolated and identified by 16S sequencing from necropsy cases of bacterial septicemia in commercial layers, broilers, and turkeys. Birds presented with high mortality and severe polyserositis characterized by accumulation of fibrin on the liver, air sacs and heart. Microscopic lesions generally included air sacculitis, pericarditis and perihepatitis with bacterial colonies within the exudate. *A. avium*, previously referred to as *Haemophilus avium*, is not generally recognized as a primary pathogen in poultry, and further genotypic analysis and pathogenicity testing are needed in order to establish a causal relationship between the microbe and the disease.

Lead toxicosis was the cause of illness and death in an 8-month-old male **cockatiel** presented with a history of regurgitation, dull mentation, inability to right itself when placed on back, and locomotor difficulties. The bird reportedly liked to play with a lot of objects and "getting into things". Radiographs noted multiple small, angular metal opacities in the ventriculus. Despite treatment, the bird was found dead in its cage about 6 hours after presentation. A liver sample submitted to CAHFS had a lead concentration of 26 ppm (any amount of lead in liver is considered abnormal).