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ANNOUNCEMENT

CAHFS toxicology test fees for in-state and out-of-state submissions are changing effective April 1st. Some fees will go down and others will increase so please check our website or call for updated rates.

Bovine

Listeria monocytogenes caused **encephalitis** and was isolated from the brain stem of a 3.5-year-old Holstein crossbred pregnant cow that was eight months in milk. The cow had a 2-day history of running into fences, jumping at cattle guards and lunging in the stanchions prior to death. A 20-month-old Jersey cow that was one day postpartum was also submitted from the same dairy with a one week history of abnormal gait, falling over while walking and recumbency. The Jersey cow had similar histologic lesions to the cow with confirmed Listeriosis, but *Listeria* cultures were negative, which is not uncommon with *Listeria* infections.

Johne's disease was the cause of **chronic weight loss** in a 5-year-old Angus bull on a pasture where a number of bulls had developed chronic wasting and died over the past two years. The submitted bull had severe thickening of the mucosa of the cecum and proximal colon with large numbers of acid fast bacilli. The location is unusual for Johne's disease which usually affects the small intestine but the histologic lesion was typical.

Small Ruminant

Yersinia pseudotuberculosis was the cause of **stillbirths** in several ewes in a flock of 15 sheep and **abortion** in a goat from an unrelated herd. Two stillborn fetuses and placentas from a ewe and three 4-month-gestation fetuses from a 4-year-old Nubian doe were submitted. Both the sheep and the goat had showed bloody vaginal discharge before delivery and abortion, respectively. In addition, the doe had experienced a fever of 105°F 18 days earlier. Placentitis was found in the ewe, and the fetuses from both the ewe and doe had embolic pneumonia, hepatitis and splenitis with large numbers of bacteria. *Yersinia pseudotuberculosis* was isolated from the liver, lung and abomasal fluids from all fetuses, and from the ovine placenta. *Yersinia pseudotuberculosis* is an opportunistic bacterium that primarily causes enteritis, often without diarrhea, in adult animals. Bacterial dissemination to the placenta results in widespread infection in developing fetuses, leading to abortion or birth of infected kids.

Listeria monocytogenes caused **neurological disease** in seven recently weaned, 4-week-old Friesian lambs from a group of 200 in a dairy sheep operation. The lambs were raised on milk replacer until weaned at about four weeks of age and then fed alfalfa and a grain mix with molasses. Clinical signs of circling and twisted neck began shortly after weaning and progressed to lateral recumbency, paddling and death within one to two days. Two lambs submitted for necropsy had severe meningoencephalitis with intralésional bacteria, affecting the brain stem. *L. monocytogenes* was isolated from the brain of one lamb and confirmed by immunohistochemistry in both lambs. One lamb also had *Mannheimia haemolytica* and *L. monocytogenes* isolated from a bronchopneumonia.

Listeria monocytogenes caused **enterocolitis** and **septicemia** in a 2-year-old Boer cross doe from a 550 goat herd where eight goats had died. The doe exhibited anorexia, diarrhea and lethargy for three to four days prior to death. Multiple nodules were found in the jejunum mucosa and wall, lung, liver and mesenteric lymph nodes, the latter were also enlarged. Bacteria, necrosis and inflammation were seen microscopically in the nodules. *Listeria monocytogenes* was isolated from the affected organs.

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Small Ruminant (cont'd)

Corynebacterium pseudotuberculosis placentitis was found in a ewe that aborted six weeks before its due date. Only the placenta was available for examination. Numerous gram positive coccobacilli were seen within the placental lesions and *Corynebacterium pseudotuberculosis* was isolated.

Equine

Peritonitis from a **perforated small intestinal diverticulum** was the cause of death of a 5-year-old American Miniature Horse gelding that had muscular hypertrophy of the entire small intestine. Diverticula and small intestine muscular hypertrophy tend to occur together in ponies, and although the cause of these conditions is unknown, parasite migration has been suggested. It is possible that sharp feed particles in the intestinal content lodge themselves in the diverticula and perforate the intestinal wall. Muscular hypertrophy of the entire small intestine, but no diverticula, was an incidental finding in 15-year-old American Miniature Horse mare that died of severe renal failure.

Pig

H3N2 influenza virus was the cause of coughing, nasal discharge, decreased appetite and on and off diarrhea on a multiple owner premises where 10-15 of the 60 pigs were affected and three pigs died. Severe coughing led to rectal prolapse in several pigs. Three of four nasal swabs from 1- to 2.5-year-old gilts were positive for the H3N2 influenza virus.

Poultry and Other Avian

Clostridium septicum was attributed as the cause of severe **cellulitis and myositis** in 14-week-old tom turkeys with signs of leg trembling, going down on legs and acute death. There was increased mortality (10 turkeys per day) in a flock of 4,000 birds, in which six out of 12 houses were affected. Skin was reddened, there was red frothy fluid in the subcutaneous tissue and some of the underlying muscles were dark red or black.

Mycoplasma gallisepticum, *Mycoplasma synoviae* and *Escherichia coli* were responsible for increased mortality in 16-week-old pullets in a flock of 5,000. The chickens had respiratory signs and necropsy revealed severe airsacculitis, pericarditis, pleuritis, perihepatitis, bronchopneumonia and tracheitis in most of the birds. The underlying cause might have been Infectious bronchitis virus (IBV). This virus was detected by immunohistochemistry on the trachea and lungs of several birds.

Gizzard worms and intestinal *Capillaria* spp. were found in three adult breeder pigeons from a flock experiencing increased mortality and severe **weight loss**. At necropsy, the birds were emaciated. One bird had an enlarged gizzard, rough and eroded koilin and large numbers of round worms consistent with *Hadjelia truncata* below the koilin layer. Two other birds had segmental intestinal dilatation with watery contents and intestinal scrapings revealed thread-like round worms containing operculated eggs consistent with *Capillaria* spp., which can cause severe chronic enteritis in birds.

Toxicology

Pentobarbital and phenytoin were found in samples received from a wolf found dead and from a cheetah found comatose at an exotic animal facility in another state. This combination of drugs is found together in several euthanasia products approved for use in dogs. Subsequent testing identified both drugs in a commercially prepared horse meat product fed to the animals. The cheetah was treated and recovered. The reason for the product contamination has not yet been identified. In a case such as this, the FDA Center for Veterinary Medicine, (<http://www.fda.gov/AnimalVeterinary/default.htm>), would have regulatory oversight of the product and should be notified in addition to relevant state agencies. Both the AVMA and the U.S. Fish and Wildlife Service have mounted campaigns to educate veterinarians on the hazards associated with improperly disposed of carcasses from euthanized animals.