



UC DAVIS
VETERINARY MEDICINE
California Animal Health and
Food Safety Laboratory System

Inside this issue:

Bovine - Outbreaks of Salmonella Dublin septicemia in calves

Equine - Equine acute respiratory distress syndrome in foals increases in hot weather

Equine - Exposure to pyrrolizidine alkaloids in horses

Poultry - Knockdown syndrome in turkeys increases in hot weather

Small Ruminants - Abomasal parasite incidence increases in summer in goats and sheep

Small Ruminants - Blue-tongue in sheep

Toxicology - Strychnine toxicosis in dogs

CAHFS CONNECTION

September 2011

Message from the Director

Richard E. Breitmeyer, DVM, MPVM

On behalf of the faculty and staff at CAHFS, welcome to the first edition of CAHFS CONNECTION.

We will use this electronic newsletter to stay in contact with our clients, and to provide updates of current diagnostic findings and new information that may be of interest to our clients and stakeholders. We will distribute CAHFS CONNECTION on a monthly basis, with additional species-specific editions coming out periodically. Our goal is to keep the articles informative, but brief. We are fortunate to have expertise within CAHFS in many areas of veterinary diagnostics, and we look forward to assisting you.

Like many programs supported by the public, CAHFS general funds were reduced for this current year, and it is likely that additional reductions will be required next year as well. In support of our core mission to quickly detect foreign and emerging diseases that can threaten California's animal agriculture or the food supply, we will not be increasing our necropsy fees as we do not want to negatively impact submissions of diseased animals. However, we are in the process of reviewing our costs for certain diagnostic tests, and will be making periodic adjustments in an attempt to recover more of our costs. This is essential if we are to maintain the high caliber of personnel and technology that you have come to expect from CAHFS. We appreciate your understanding of the necessity for us to regularly review our fee structure. Current fees may be found at www.cahfs.ucdavis.edu.

It has been my pleasure since November 2010 to serve as the new Director for CAHFS. In my former role as State Veterinarian with the California Department of Food and Agriculture, I had the opportunity to work with many of CAHFS clients and stakeholders, and I look forward to meeting more of you in the near future. Please feel free to contact me at any time at rebreitmeyer@ucdavis.edu or by phone at (530) 752-8709.

Bovine

Outbreaks of *Salmonella Dublin septicemia* are most common in 1–3-month-old calves and may present as respiratory disease with poor response to treatment. The respiratory signs are a combination of interstitial pneumonia and fever. Diarrhea may not be present in all animals and as such the feces are not always culture positive for this agent. The liver is the most consistently culture positive site in dead calves. The poor response to treatment is due to farms using treatments intended for common pneumonia agents like *Manheimia* and *Pasteurella*, but *Salmonella* is more resistant than those organisms and may require a higher dose or more frequent treatment to get adequate response.

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Your feedback is always welcome. To provide comments or to get additional information on any of the covered topics or services, please contact Sharon Hein at

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We're on the Web
www.cahfs.ucdavis.edu

Equine

Acute respiratory distress syndrome in foals is a condition we see every year during periods of high temperatures. The lung is flooded with fluid and fibrin which forms hyaline membranes resulting in rapid progression to death in foals. The inciting cause can vary though most cases have a link to a high fever which damages pulmonary vessels making them leaky. A number of the cases submitted to CAHFS over the years have had one or more small *Rhodococcus equi* abscesses or a history of treatment for this agent. Erythromycin may interfere with temperature regulation making foals more susceptible to high fever.

CAHFS has received a number of cases of fatal liver damage in horses over the past year, which appear to be due to exposure to **pyrrolizidine alkaloids**. These alkaloids cause progressive liver scarring even after the plant is no longer present in the feed. The most common plants causing this are fiddleneck and common groundsel. The latter can look like the non-toxic sowthistle. Forage, particularly first cutting hays, fed to horses should be carefully checked for these plants to prevent liver damage.

Poultry

Knockdown syndrome in turkeys due to ionophore toxicosis occurs more often in the hot months due to bolus feeding during the cooler hours of the day. This results in the birds receiving a day's worth of ionophores in a short period of time resulting in peak levels causing muscle damage. The disease condition can be diagnosed with histopathology on the inner thigh and intercostal muscles even when total feed levels are within recommended ranges.

Small Ruminants

Abomasal parasitism is seen year-round in goats and sheep submitted to CAHFS. *Teladorsagia* and *Haemonchus* are the most common worms found in the abomasum. These parasites cause bottle jaw and anemia and can lead to death. Resistance to available deworming medications has been reported, and may contribute to large parasite infestations in these livestock species. Diagnostic fecal exams in conjunction with deworming history can help to identify this problem. Pasture goats and sheep may also have copper and selenium deficiency predisposing to more severe infections with parasites. Serum for copper and whole blood for selenium can be tested to detect deficiencies.

Bluetongue is a common viral disease seen primarily in sheep and occasionally in cattle. Bluetongue outbreaks in California usually occur from late July to the end of October. The disease is common throughout the state and most prevalent in the San Joaquin and Sacramento River valleys and coastal regions. Testing is available at the CAHFS laboratory to confirm this disease. Fresh whole blood samples (purple top tubes) from live animals demonstrating clinical signs or splenic tissues collected from dead animals at the time of necropsy can be tested for the virus. More information on Bluetongue virus can be found on our web site, http://www.cahfs.ucdavis.edu/about/publications/other_publications.cfm

Toxicology

Strychnine toxicosis was diagnosed in two adult dogs from separate owners. Clinical signs included seizures followed by death in one dog. Vomiting, difficulty walking and dyspnea progressed to hyperthermia, seizures and vomiting blood in the second. The toxicant was found in the stomach contents of both dogs. The CAHFS' Toxicology section accepts tissues, body fluids, gastrointestinal content, baits and feeds from all species and provides consultation on developing a differential diagnosis of potential toxicoses.

Holiday Schedule

In observance of Labor Day, CAHFS will be closed on Monday, September 5, 2011.