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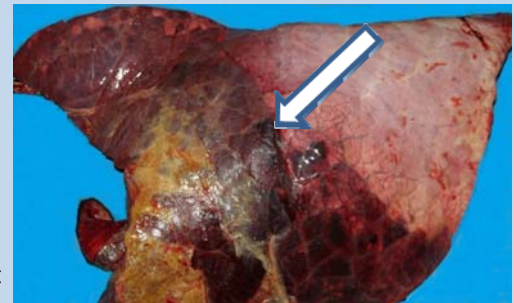
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NEW WNV FEE

Effective September 1, 2013, CAHFS will charge \$6 for the West Nile virus (WNV) IgM ELISA as this will no longer be subsidized by the California Department of Public Health.

Bovine

Mannheimia haemolytica was the cause of severe, bilateral **pleuropneumonia** in several beef operations throughout the state in the past two months. Some of the affected premises include a feedlot where 10 of 400, 18-month-old Angus steers died with little or no clinical signs, a pastured Angus cow herd where 40 of 50 cows had severe respiratory signs (cough, open mouth breathing and foaming, nasal discharge) and eight died in three days, and a cow-calf operation where 20 of 200 recently weaned, 9-month-old Hereford calves had respiratory signs and three died within one day of onset of signs. **Copper and selenium deficiency** was detected in the cows and weaned calves. Serology on a steer indicated exposure to BRSV and BVDV based on high titers without recent vaccination. IBR, BVDV, BRSV and PI3 virus testing was negative by PCR and/or FA on all animals tested. The absence of virus by these tests does not rule a viral agent as an initiating cause as the virus may no longer be present at the time of death. Mineral deficiencies, stress of pregnancy, weaning or adverse environmental conditions, overcrowding, co-mingling with sick animals and recent movement or shipment of cattle can all contribute to respiratory disease outbreaks.



Severe pleuropneumonia in Angus steer due to *Mannheimia haemolytica* (arrow at line of demarcation)

Coronavirus was associated with an outbreak of **bloody diarrhea** and a drop in milk production resembling **winter dysentery** which affected 50 cows on a 500 cow Holstein dairy over a 2-3 week period. Five cows died. Coronavirus was detected in the colon by immunohistochemistry and fluorescent antibody tests and in feces by electron microscopy.

Equine

Ulcerative enterocolitis and typhlocolitis associated with *Actinobacillus equuli* and *Streptococcus equi* are occasionally observed in both foals and adult horses and clinical signs may be enteric (colic, diarrhea or colitis) or non-specific (depression, inappetence, fever, and death). Some horses may develop secondary septicemia or toxemia. In cases of colitis associated with *Actinobacillus equuli* and *Streptococcus equi*, lesions are often well defined, multifocal ulceration and inflammation over lymphoid tissue (GALT) scattered throughout segments of the large colon, usually associated with large numbers of bacteria over the ulcers. These multifocal lesions are different from the typical diffuse or regionally extensive necrotizing lesions described for the most frequently identified bacterial pathogens of horses, namely *Clostridium perfringens* type C, *Clostridium difficile* and *Salmonella* sp. Although not among the common causes of bacterial colitis in horses, *Actinobacillus* sp. and *Streptococcus* sp. may be opportunistic intestinal pathogens of horses and should be considered as differential diagnoses in cases of equine intestinal disease.

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Small Ruminant

Mycoplasma was the cause of **mastitis** in does from two different goat herds. One doe submitted for necropsy had severe unilateral mastitis and septicemia causing pulmonary hemorrhage. The organism isolated from this doe was typed as *M. mycoides ssp mycoides* large colony type. **Polyarthritis** (most severe in carpal joints), unilateral eye infection, meningitis, pneumonia and osteomyelitis in two fractured ribs was due to *Mycoplasma* in a 4-week-old copper and selenium deficient kid that was sick for one week in a third herd.

Pig

Chronic gastric ulcer leading to anemia was the cause of **anorexia** in a 4-month-old show pig. The pig had been going downhill for 2-3 weeks since it appeared to have sustained a leg injury though no leg problem was found at necropsy. A *Trueperella pyogenes* **abscess** was found compressing the **cerebellum** and contributed to the decline and possible earlier gait abnormalities.

Poultry and Other Avian

Ascarid (roundworm) migration was the cause of sudden onset of **neurologic signs** – head tilt and left side paresis in a 6-week-old chicken. A large granulomatous lesion was observed in the **brain stem** with a cross-section of an ascarid-like parasite in the center. Granulomatous lesions were also seen in the lungs. The submitting veterinarian indicated the owner had a problem with raccoons. *Baylisascaris procyonis* is a ubiquitous roundworm in raccoons and when the roundworm eggs are ingested by other hosts (including children), larvae develop from the eggs and migrate through the internal organs, frequently penetrating the brain. Keeping chickens, children and other animals away from raccoon fecal material is extremely important.

Salmonella Enteritidis (SE) was isolated from a **rooster** submitted to CAHFS with digestive tract inflammation. Two weeks earlier, the rooster had been abandoned in a park which also contained other abandoned chickens. A neighbor with chickens, pigeons and pets took in the bird for nursing care after observing it with lethargy, diarrhea and fever. On a separate premise, *Salmonella* Enteritidis was isolated from seven, 15-day-old **chickens** submitted from a community farm where 100 of the 300 chickens purchased from a hatchery had died.

Botulism was diagnosed in **ducks** from three different locations in southern California; at each location several birds were affected. In one outbreak, type C botulism was confirmed while the type of botulism could not be determined in the other two outbreaks. Avian botulism is characterized by flaccid paralysis so birds cannot hold their heads up and drown. Death can also result from respiratory failure, water deprivation, electrolyte imbalance or predation. The disease occurs when botulinum toxin, one of the most powerful toxins, produced by *Clostridium botulinum*, is ingested. The bacterium requires warm temperatures and absence of oxygen in order to multiply and produce toxins. Decomposing vegetation at the bottom of lakes and ponds is an ideal environment for it; which is believed to be the reason most outbreaks occur in late summer and fall when the water level is low so birds can feed off the bottom of lakes or ponds.

Small Animal

Amanitin (mushroom) toxicosis was the cause of a 2-day history of lethargy, **vomiting and bloody diarrhea** in a 4-month-old dog. Blood chemistries had significant elevations in liver enzymes and bilirubin. Urine was submitted to CAHFS toxicology after the veterinarian noted that the dog could have been exposed to mushrooms in the owners' backyard. The urine sample was positive for **amanitin**, the **hepatotoxin** found in *Amanita* and other species of mushrooms. The dog survived after receiving several days of supportive care at a veterinary hospital. In cases of suspected amanitin exposure, ante-mortem testing can be performed on urine (up to 72 hours post-exposure), vomitus, or the suspected mushroom. Post-mortem testing can be performed on the same samples as well as kidney or liver.

Rabbit myxomatosis (Ieporipox) infection was the cause of sudden death in a 3-year-old pet rabbit housed with one other rabbit. Slightly swollen eyelids with classic histologic lesions including poxvirus inclusions were diagnostic. The rabbit also had a **bacterial septicemia** which caused hepatic necrosis and pulmonary edema.