



**UC DAVIS**

**VETERINARY MEDICINE**

California Animal Health and  
Food Safety Laboratory System

# CAHFS CONNECTION

July 2014

## Inside this issue:

- **Director's Message**
- **Bovine** - Dermatophilosis
- **Equine** - *Streptococcus equi* meningitis
- **Pig** - *Salmonella* group B and circovirus type 2
- **Small Ruminant**
  - *Leptospira* nephritis—alpacas
  - Nasal adenocarcinoma—sheep
- **Poultry/Other Avian**
  - Avian encephalomyelitis—chickens
  - *Erysipelothrix* septicaemia—goslings
- **New poultry website**



### Holiday Schedule

CAHFS will be closed on **Friday, July 4, 2013** in observance of Independence Day.

Please contact your laboratory to plan your testing needs accordingly.

## Director's Message

This month we are saying good-bye to Dr. **Hailu Kinde, DAH '68, DVM '78, MPVM '82, DACPV, DACVM**, who will retire from CAHFS on July 1, 2014. Dr. Kinde joined the CAHFS faculty in 1987 as a veterinary diagnostician at the San Bernardino branch where he became branch chief in 2006. During his tenure at UC Davis, Dr. Kinde served for two years as the interim director of the CAHFS system. One of his many contributions was the development in 1994 and ongoing leadership of the Central Milk Laboratory which serves the dairy industry of California. Described as a "particularly astute diagnostician," Dr Kinde's expertise includes microbiology and poultry pathology. As one example of his scientific endeavors that contributed to the health and safety of production agriculture, Dr. Kinde designed a study to monitor *Salmonella* species present in commercial poultry facilities to determine the type and amount of bacterium in the environment over time. His work demonstrated the efficacy and cost effectiveness of using drag swabs and pooled sampling for *Salmonella* monitoring in poultry facilities. He is currently completing a validation study of drag swabs in collaboration with FDA and the industry for monitoring *S. Enteritidis*. He also provided leadership during the 2002-03 exotic Newcastle disease outbreak in Southern California, and served as the principal liaison with the Incident Command. Dr. Kinde's outstanding accomplishments have been recognized by two industry research awards—the 2009 Trek Award for Excellence in Diagnostic Veterinary Microbiology and the 2010 Agilent Thought Leader Award.

## Bruce R. Charlton, M.S., DVM, Ph.D., DACPV, DACVM 1952-2014

Sadly, I must inform you that our colleague, Dr. Bruce Charlton, Branch Chief at the CAHFS Turlock lab, passed away on May 26th. Dr. Charlton joined the CAHFS faculty in 1987, serving the School and people of California for 27 years. He was a dual board certified avian diagnostician and served as branch chief of the Turlock facility since 1997. His contributions in recognizing very virulent Infectious Bursal Disease virus, subsequent publications, and outreach communication were considered pivotal in containing the potentially devastating economic consequences of this poultry disease in California and the country. As an astute diagnostician, Dr. Charlton was innovative in diagnostic test development and in seeking national recognition and approval of new methods that reduce confirmation time and improve diagnostic efficiency for *Mycoplasma gallisepticum* and *Salmonella enteritidis*. He wrote 23 publications, three book chapters and notably edited three editions of the Avian Disease Manual. In addition, Dr. Charlton mentored avian diagnostic residents and provided leadership in the poultry industry. He was honored with the 2007 Poultry Scientist of the Year Award from the Pacific Egg and Poultry Association.

## Bovine

**Dermatophilosis** (aka 'rain scald') identified by histology was the cause of generalized **alopecia** with skin **lichenification** in the cervical and thoracic areas of a recently fresh first calf heifer. CAHFS typically sees dermatophilosis in postpartum fresh heifers in the early summer in herds in which older cows are not affected. Distribution of the lesions is often ventral or lower lateral, which is probably due to exposure to the wash pen spray during a period when environmental temperatures are high and conditions are optimal for this organism, *Dermatophilus*, to infect the skin. In some circumstances the disease is severe enough to cause death of the animals.

## CAHFS Lab Locations

### CAHFS - Davis

University of California  
620 West Health Sciences Drive  
Davis, CA 95616  
Phone: 530-752-8700  
Fax: 530-752-6253  
[cahfsdavis@cahfs.ucdavis.edu](mailto:cahfsdavis@cahfs.ucdavis.edu)

### CAHFS - San Bernardino

105 W. Central Avenue  
San Bernardino, CA 92408  
Phone: (909) 383-4287  
Fax: (909) 884-5980  
[cahfsanbernardino@cahfs.ucdavis.edu](mailto:cahfsanbernardino@cahfs.ucdavis.edu)

### CAHFS - Tulare

18830 Road 112  
Tulare, CA 93274  
Phone: (559) 688-7543  
Fax: (559) 686-4231  
[cahfstulare@cahfs.ucdavis.edu](mailto:cahfstulare@cahfs.ucdavis.edu)

### CAHFS—Turlock

1550 Soderquist Road  
Turlock, CA 95381  
Phone: (209) 634-5837  
Fax: (209) 667-4261  
[cahfsturlock@cahfs.ucdavis.edu](mailto:cahfsturlock@cahfs.ucdavis.edu)

---

---

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 [shein@ucdavis.edu](mailto:shein@ucdavis.edu).

---

---

We're on the Web  
[www.cahfs.ucdavis.edu](http://www.cahfs.ucdavis.edu)

## Equine

*Streptococcus equi ssp. equi* was isolated from the **brain** of a 16-year-old Thoroughbred mare with subpar health and sudden onset of **neurologic signs** including lack of tail tone, wide leg stance, and unsteady fore limb gait the day prior to euthanasia. Meningitis of the brain was noted at necropsy. Histopathology also identified spinal meningitis and a pituitary gland abscess with Gram positive cocci. No gross lesions were noted elsewhere in the body and the source of the *Streptococcus* sp. was not identified.

## Pig

*Salmonella* group B and circovirus type 2 were diagnosed from tissues submitted from two 3.5 month old pigs with a 4-5 day history of **vomiting, diarrhea and lethargy**. The pigs also had *Trichostrongylus axei* (whipworms) detected on histopathology. A 2-month-old pig submitted for necropsy from another ranch with a 2-week history of **weight loss** had necrotizing enterotyphlocolitis from which *Salmonella* group B was isolated, and circovirus type 2 was detected in tonsil and lymph nodes that had lymphoid depletion.

## Small Ruminant and Camelid

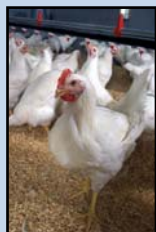
*Leptospira nephritis* and transmural gastric necrosis of undetermined cause were diagnosed in a 5-year-old and a 2-year-old female alpaca from a ranch with a history of four abortions one month prior to the death of 3 adult females. The older female that aborted and died in respiratory distress a month later and the younger one exhibiting weakness, weight loss and **anemia** were submitted. Necropsy revealed peritonitis secondary to gastric necrosis in the older female. Both alpacas had nephritis which was positive for *Leptospira* by immunohistochemistry. *Leptospira* serology titers were >1:3200 to 3 serovars and leptospirae were also identified in the grossly swollen kidneys by silver stains and FA in the younger alpaca.

**Nasal adenocarcinoma** with focal squamous cell carcinoma was the cause of severe upper **respiratory stridor** and malodorous mucopurulent **nasal discharge** in a 2-year-old, black-faced ewe submitted for necropsy. Radiographs had demonstrated a mass in the right maxillary sinus. **Enzootic nasal tumor virus**, the virus associated with this syndrome, was detected by PCR.

## Poultry

**Avian Encephalomyelitis (AE)** was diagnosed in a flock of 11,500, 10 to 12-week-old White Leghorn pullets. About 8% of the flock exhibited **neurological signs** and ~2% either died or were culled a few weeks after vaccination for AE. Necropsy of 12 chickens did not reveal any gross lesions but histopathology revealed characteristic lesions of avian encephalomyelitis in the brain and spinal cord, and mild neuritis. AE virus was confirmed by PCR on the brain and peripheral nerves. It is suspected that AE vaccine used in this flock was probably egg-adapted and might have caused AE in these chickens.

*Erysipelothrix rhusiopathiae* **septicemia** caused increased mortality in 4 to 8-week-old goslings in a commercial flock. Necropsy revealed severe bilateral **swelling of feet and hocks** with **hematomas** visible through the skin, and thickened, edematous and hemorrhagic subcutis. The livers and spleens were enlarged and severely congested. *E. rhusiopathiae* was isolated in pure culture from joints, subcutaneous tissues and livers. A possible source may be a sheep flock raised on the same ranch.



## NEW POULTRY WEBSITE

The University of California Cooperative Extension poultry website is designed to help you find information for all of your poultry needs (backyard, small scale, commercial with information on husbandry, diseases, biosecurity, food safety and more). Visit it at <http://ucanr.edu/sites/poultry>