



Mission Statement

The Animal Health Branch is California's organized, professional veterinary medical unit that protects livestock populations, consumers, and the State's economy from catastrophic animal diseases and other health or agricultural problems.

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Animal Health Branch Newsletter

Volume 24

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2014 Low Pathogenicity Avian Influenza H5N8 Incident in California

By Kent Fowler, D.V.M., Chief, Animal Health Branch
Maureen Lee-Dutra, D.V.M., Lead Epidemiologist CA LPAI Incident

The California Department of Food and Agriculture (CDFA), Animal Health and Food Safety Services (AHFSS), Animal Health Branch (AHB), is responsible for protecting the health of the State's poultry and for supporting an environment conducive to international trade. Highly pathogenic avian influenza (HPAI) is a foreign animal disease (FAD) reportable to the United States Department of Agriculture (USDA) and CDFA. Detections are subject to quarantine, eradication and control procedures. Low Pathogenicity Avian Influenza (LPAI), subtypes H5 and H7, have been shown to mutate into HPAI subtypes, so the presence of LPAI subtypes H5 and H7 pose a serious threat to the California poultry industry.



Worldwide, wild waterfowl populations are a reservoir of Avian Influenza (AI) viruses, where AI control is not feasible. The introduction of AI into domestic avian populations may occur by domestic bird-to-bird contact, through bird contact with contaminated people, feed or equipment, and through secondary introductions from the wild bird reservoir. AI is a high risk to commercial poultry, therefore these operations maintain biosecurity to mitigate the AI risk.

Trading partners have increasing concerns on product importation from areas where LPAI infection exists in poultry. Imposition of trade restrictions on poultry due to LPAI can be very damaging to the poultry industry. In recent years, serious human infections with the H5 and H7 AI subtypes have occurred in other countries, so protection of public health is also a concern.

On April 14, 2014, nine (9) 10-15 week old quail, from a commercial quail and duck layer facility experiencing an increase in mortality and morbidity, were presented to the California Animal Health and Food Safety (CAHFS) Laboratory - Turlock for diagnostics. A preliminary report on April 18th indicated a PCR positive result for an AI H5 virus, this virus was subsequently typed as H5N8 LPAI. A quarantine was immediately placed on the index premises (IP) and two additional premises under the same ownership. CDFA and USDA immediately provided staff to respond to this detection using the Incident Command System.

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2014 Low Pathogenicity Avian Influenza (*Continued*)

Depopulation of the IP quail and duck barns to eliminate the virus took place on April 21-25th. Duck and quail eggs (for hatching and product) were destroyed and disposed of on April 23-25th. Trace forward product and bird movements, were investigated with no significant risk determined. The IP Cleaning & Disinfection (C&D) process, under the supervision of CDFA/USDA personnel, continued through June 2014 and final IP environmental sampling is part of the C&D Compliance Agreement. Incident personnel completed weekly sampling of ducks for four consecutive weeks on the owner's two contact premises on May 20th.

All commercial poultry premises identified in the 10 kilometer (km) zone were sampled for testing by private veterinarians or industry personnel under veterinary oversight. Poultry on high-risk premises, identified from a feed truck route summary, based on pre-determined criteria, were sampled for testing by CDFA/USDA personnel. All AI surveillance tests were negative.

Incident personnel performed door-to-door outreach in the 0-3 km zone. Poultry on all identified premises were sampled for testing and/or AI outreach material was distributed. Outreach in a 20 km zone targeting feed stores, pet stores, youth groups and industry organizations were also performed. The rapid initial detection and testing throughout this incident by the CAHFS and National Veterinary Services Laboratory (NVSL) were invaluable. Through a rapid response by CDFA/USDA staff, the LPAI virus was contained on the IP and eliminated. The extensive epidemiological investigation and active surveillance sampling of poultry in the established Surveillance Zone with no virus detection provide confidence in freedom from LPAI. The completed surveillance and testing of at-risk populations will hopefully restore trade in a timely manner.

This incident reinforces that rapid reporting and diagnosis of livestock and poultry diseases is critical for prompt containment and elimination of disease incursions by State and Federal veterinarians and other regulatory personnel, private practitioners and CAHFS and NVSL laboratory personnel.



Swine Enteric Coronavirus Diseases

By Hector Webster, D.V.M., M.S., Section Lead for Small Ruminants, Swine and Wildlife

Novel swine enteric coronavirus disease (SECD) is a disease in swine caused by emerging porcine coronaviruses, including porcine epidemic diarrhea virus (PEDV) and porcine delta coronavirus (PDCoV). SECD is characterized by an acute, rapidly-spreading viral diarrhea of pigs; no other species are known to be affected and it is not a public health threat. Infected pigs, depending on age, develop varying degrees of diarrhea and inappetence.

PEDV was first reported in the United States (US) in 2013 and quickly spread throughout the country; PEDV has been reported in thirty-one (31) States with disease associated mortality of approximately 7 million piglets. PEDV has also been reported in Canada and Mexico and is suspected in Central America, Colombia, Peru, and the Dominican Republic. PEDV is thought to be widespread in most regions of Western and Central Europe and Southeast Asian countries, including China and Japan. Severe PEDV outbreaks with high mortality are typically rare in Europe, but reported outbreaks in Asian countries are often more acute and severe than those in Europe. A large increase in outbreaks in China since 2010 has been attributed to the emergence of new strains of the virus.

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Swine Enteric Coronavirus Diseases (*Continued*)

PDCoV was first reported in China in 2012. During the past year, USDA confirmed for the first time, the presence of both PEDV and PDCoV in the US. Infections with these coronaviruses can cause significant morbidity and mortality, particularly in young piglets. In response to the significant impact SECDs, including PEDV and PDCoV, are having on the US pork industry, the United States Department of Agriculture (USDA) issued a Federal Order on June 5, 2014 requiring reporting to federal or state animal health officials and management of herds infected with PEDV, PDCoV or other novel SECD.

To Report Detection of PDCoV Contact	
AHB Headquarters	916-900-5002
AHB Redding District	530-225-2140
AHB Modesto District	209-491-9350
AHB Tulare District	559-685-3500
AHB Ontario District	909-947-4462
USDA District 6 SPRS	916-854-3950

The basic requirements of the Federal Order are that 1) producers, veterinarians, and diagnostic laboratories report all new cases of SECD, including PEDV and PDCoV, to USDA or State animal health officials, and 2) operations reporting these viruses must work with a veterinarian - either their herd veterinarian or a USDA or State veterinarian - to develop and implement a reasonable management plan to address the detected virus and prevent its spread.

Recommended methods of disease control include strict biosecurity and sanitation practices. To control against disease in swine caused by PEDV, USDA issued a conditional license to Harrisvaccines, Inc., Ames, IA for Porcine Epidemic Diarrhea Vaccine, RNA (Product Code 19U5.D0), on June 16, 2014. The vaccine, available through veterinary prescription, is labeled for intramuscular vaccination (and subsequent booster three weeks after initial vaccination) of healthy swine more than three weeks of age.

More about the requirements of the [Federal Order](#)
To learn more about USDA's SECD program, [Q&A Factsheet, May 2014](#)

Fall 2014 Veterinarian (General) Classification Examinations

The California Department of Food and Agriculture will offer and schedule examinations for the Veterinarian (General) Classification in the Fall of 2014. Interested veterinarians should complete and submit an *Examination/Employment Application* (<https://jobs.ca.gov/pdf/std678.pdf>) to qualify to sit for the examination. Selection of candidates for available positions can be made from the top three rankings on the post-examination eligibility list.



Vesicular Stomatitis Update – 2014

By Katie Flynn, BVMS, MRCVS, Equine Program Lead

On May 28, 2014, the Texas Animal Health Commission announced confirmation of the nation's first 2014 case of Vesicular Stomatitis in horses. Since initial identification, a total of eleven (11) horses have been confirmed positive for the New Jersey serotype of Vesicular Stomatitis Virus (VSV). Four Texas counties have confirmed VSV cases: Hildalgo, Kinney, Nueces and San Patricio. All premises with identified infected animals are under quarantine and animals on these premises are being monitored. A total of 105 susceptible animals (88 equid, 4 bovine, 13 caprine) reside on the quarantined premises. Premises are eligible for quarantine release twenty-one (21) days after all lesions have healed on infected horses.

The California entry requirements specify that all horses, cattle, and swine originating from any state where vesicular stomatitis (VS) has been diagnosed, (except cattle and swine transported directly to slaughter), must be accompanied by a health certificate (certificate of veterinary inspection), signed by an accredited veterinarian, that includes the following statement:

“The animals represented on this health certificate of veterinary inspection have not originated from a premises or area under quarantine for vesicular stomatitis (VS) or a premises on which VS has been diagnosed in the past 30 days. I have examined the animals and have found no signs of VS.”

For additional information visit: http://cdfa.ca.gov/ahfss/Animal_Health/Horses_Equine_Health.html



Racing Quarter Horse Disease Investigation

by Katie Flynn, BSMS, MRCVS, Equine Program Lead

On June 9, 2014, the California Animal Health and Food Safety (CAHFS) Laboratory confirmed Equine Infectious Anemia (EIA) in a 5 year-old racing Quarter Horse stallion in Stanislaus County. On June 11, 2014, the National Veterinary Services Laboratory (NVSL) also confirmed the detection of *Theileria equi*, the organism responsible for the foreign animal disease Equine Piroplasmiasis (EP), in the stallion's blood sample. The stallion had been presented to an equine emergency clinic with severe depression and hematuria, then collapsed and died. The stallion is known to have participated in the high-risk practice of unsanctioned Quarter Horse Racing.

The initial investigation identified two epidemiologically-linked premises, the Stanislaus County premises of origin and a previous premises of residence of the EIA/EP positive stallion in San Joaquin County. The index premises in Stanislaus County was involved in the 2013 EIA/EP investigation involving racing Quarter Horses; two (2) EP positive horses remain in isolation and quarantined on this premises.

To date, a total of forty-seven (47) horses associated with three premises were tested for EIA and EP. One (1) horse on the San Joaquin County premises was confirmed with dual infection of EIA and EP and euthanized. On the Stanislaus County premises, EIA was confirmed in four (4) additional horses and EP was confirmed in one (1) horse. The four (4) EIA positive horses were euthanized and the disposition of the EP positive horse is pending. The management of an EP positive horse are humane euthanasia, lifetime isolation and quarantine, or isolation/quarantine with enrollment in the USDA-approved treatment protocol. The management options for an EIA positive horse are humane euthanasia or restrictive lifetime quarantine of the individual horse at least 200 yards from other horses.

EIA investigation protocols require that all exposed horses be re-sampled sixty (60) days after removal of an EIA positive animal from the premises. The epidemiologic investigation of this incident is ongoing.



Caudal Fold Tuberculin Testing

By Anita Edmondson, BVMS, MPVM, MRCVS

Accredited veterinarians play a vital role in the National Bovine Tuberculosis (TB) Eradication Program. When evaluating the Caudal Fold Test (CFT), cattle with any response to the test must undergo confirmatory tests by approved personnel. Failing to detect infected cattle can have significant political, economic, and animal health consequences.

The USDA/APHIS *Bovine Tuberculosis Eradication Uniform Methods and Rules* has "Performance Standards for Caudal Fold Tuberculin Testing", which have the expected minimum number of caudal fold tuberculin (CFT) test responders in relation to the number of animals on the test. USDA annually tracks and publishes the CFT response rate for each state; CDFA or USDA personnel contact California veterinary practitioners that have lower than expected CFT response rates. Practitioners are responsible for using care and diligence when performing and reporting TB-tests. CDFA has been informed that some clients may be replacing veterinarians that have "high CFT response rates" with practitioners that report fewer responders on the test, which is a concern. CDFA can assist veterinarians by evaluating their tuberculin handling and administration procedures and CFT reading practices to ensure that appropriate practices are being used.

We appreciate the partnership California accredited veterinarians play in the state and national bovine tuberculosis surveillance and eradication efforts.

New Contact Information for the Colorado Department of Agriculture

Colorado Department of Agriculture
305 Interlocken Parkway
Broomfield, CO 80021
(303) 869-9000
Hours of Operation: 8 a.m. - 5 p.m.

Reminder

When preparing to move livestock Interstate, please check with the state of destination for their entry requirements.

Use of Radio Frequency Identification Devices (RFID) as the Official Brucellosis Vaccination Identification Tag

By Victor Velez, Research Program Specialist II and Rachelle Kennedy, Research Scientist I

CDFA allows the use of USDA-approved Animal Identification Number (840) RFID tags as the Official Brucellosis Vaccination Identification Tag or official animal identification number at time of brucellosis vaccination with the following conditions:



Orange Color: Application of orange RFID tags in the left ear may only occur at the time of vaccination in lieu of an orange metal brucellosis vaccination tag. Accredited Veterinarians must obtain approval from CDFA before beginning to use orange RFID tags for brucellosis vaccination identification. Once approved for use, the accredited veterinarian can order these special-use orange RFID tags directly from the manufacturer. To use and apply these tags, an accredited veterinarian must become an AIN distributor and maintain accurate records of premises locations where the tags were applied to calves.

Other Color RFID Tags: Other color RFID tags, applied before or at the time of brucellosis vaccination, can be used by the Accredited Veterinarian as the official animal identification number at time of vaccination instead of **or** with application of an orange metal brucellosis vaccination tag. The producer or veterinarian can purchase RFID tags directly from tag retailers.

If an RFID tag is being used as the Official Brucellosis Vaccination Identification Tag or official animal identification number at the time of vaccination, the veterinarian must send an electronic file of the identification tag numbers to CDFA at evet@cdfa.ca.gov within fifteen (15) days of vaccination. Practitioners may use the USDA MIM software to generate the required Brucellosis Vaccination Form. Practitioners must also submit the signed **Report of Heifer Calves Vaccinated – Brucellosis** (Form 76-026) or USDA MIM generated vaccination form to the local CDFA District Office, and forward the electronic record to the above e-mail.

REMINDER

All brucellosis-vaccinated cattle must bear a legible brucellosis vaccination tattoo in the right ear.

Please contact Rachelle Kennedy at rachelle.kennedy@cdfa.ca.gov if you have interest in using RFID for brucellosis vaccination.



In Memoriam

In Memory of George West, D.V.M.

February 3, 1927 – April 2, 2004

Dr. George West was a veterinary medical officer for the California Department of Food and Agriculture Animal Health Branch from 1957 to 2004. He became the CDFA UC - Davis School of Veterinary Medicine liaison in 1978 and taught regulatory veterinary medicine for more than twenty-five years. George worked tirelessly on matters related to food safety and animal health in California. Over the course of his career, he received recognition and numerous awards from academia, commodity groups and other government agencies.

He was a decorated U.S. Marine Corps WW II veteran, retiring as a Lt. Colonel, and was a world-class marksman for the U.S Army Reserves. He will be remembered by many as a story-telling coworker, teacher, mentor and friend.



undated photo by George West

In Memory of Bruce R. Charlton, M.S., D.V.M., Ph.D., DACPV, DACVM

1952 - 2014

Dr. Charlton had been on the faculty of the University of California - Davis for twenty-seven years and was well known by AHB personnel and the poultry industry as an accomplished avian pathologist. Since 1997, he was the Branch Chief of the California Animal Health and Food Safety Laboratory - Turlock. Dr. Charlton was an astute diagnostician, a great resource on avian health issues and provided leadership in the poultry industry. He made significant contributions to diagnostic test development and approval of testing methods to decrease test confirmation times for diagnosis of specific avian diseases of importance. Dr. Charlton's dedication to avian pathology are evidenced in his numerous publications and numbers of students he mentored in avian diagnostics.

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