#### **Mission Statement**

The Animal Health Branch is the State's organized, professional veterinary medical unit that protects livestock populations, consumers, and California's economy from catastrophic animal diseases, disasters that impact animals, and other health or agricultural problems. The Branch addresses diseases and other problems that cannot be successfully controlled on an individual animal or herd basis but require state-wide coordinated resources. Implementing programs that protect California's livestock industries and consumers, ensures the availability, affordability, and wholesomeness of food.



# **Animal Health Branch Newsletter**

Volume 55 April 2022



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### Branch Chief's Message

By: Dr. Anita Edmondson, BVM&S, MPVM, MRCVS

The Animal Health Branch origins date to 1899 when the office of the California State Veterinarian was established by the legislature to "protect the health of all domestic animals of the state from all contagious and infectious diseases, so far as practical". Though functions have increasingly diversified in response to changes in agriculture and public health events, our mission remains largely the same: protecting livestock populations, consumers, and California's economy from catastrophic animal diseases, disasters that impact animals, and other health or agricultural problems. Our highest priority remains coordinating state-wide resources to exclude, detect, and respond to foreign animal diseases.

To achieve these goals, our activities include performing routine disease surveillance and investigations, conducting outreach and education, and planning and preparing to detect the introduction/spread of animal pests. When necessary, we apply quarantines to control and actively eradicate diseases. But we cannot achieve these goals alone; our stakeholders, livestock and poultry producers, practicing veterinarians, and the public are critical in supporting and achieving this mission.

Today we are staying one step ahead as we mitigate and prepare for Highly Pathogenic Avian Influenza; we are learning from recent outbreaks and listening to our stakeholders, encouraging enhanced biosecurity and assisting producers to prepare their Secure Food Supply plans to enable continuity of business during a disease outbreak. We are proud to serve the citizens of California and we are dedicated and committed to our mission to continue protecting California's successful and productive agriculture.

### Highly Pathogenic Avian Influenza Situation Update in the United States and Canada

By: Felicia Pohl, BS, Avian Coordinator

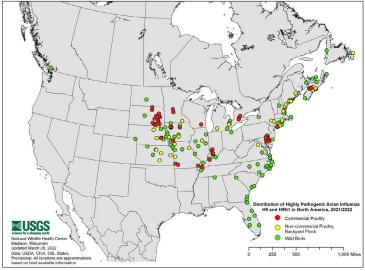
**Highly Pathogenic Avian Influenza (HPAI)** is a serious disease and requires rapid response because it is highly contagious and often fatal to chickens.

In December 2021, the Eurasian (EA) strain of Highly Pathogenic Avian Influenza (HPAI) H5N1 was reported on an exhibition farm with multiple bird species (chicken, turkeys, emus, geese,

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ducks, guinea fowl and peafowl) in Eastern Canada. This was the first case reported in North America for the 2021/22 migratory season. Subsequently, HPAI EA H5 and EA H5N1 viruses have been confirmed in wild birds, backyard flocks, and commercial poultry facilities in both Canada and the United States.

HPAI has been confirmed in all four North American flyways in 2022. In the United States the virus has been confirmed in the Atlantic, Mississippi and Central flyways. In Canada it has been confirmed in three flyways – the Atlantic, Mississippi, and Pacific. The most recent cases in wild birds were found in Snow geese and Ross's geese in Northeast



Sources/Usage: Public Domain

Colorado and Snow geese and Canadian geese in North and South Dakota.

In the United States, as of April 4, 2022, HPAI has been documented in 118 domestic flocks and 593 wild bird cases. For an up-to-date list of confirmed cases, you can visit: <u>USDA APHIS | 2022 Detections of Highly Pathogenic Avian Influenza</u>.



Source: gov.uk

CDFA has created an <u>infographic</u> about the quarantine, permitting, and Control Areas. It is updated every few days with affected states and counties that have an active Control Area. While the detailed boundaries of the Control Areas are not public, the affected county list can help producers make decisions about any incoming shipments.

California poultry producers have been informed to enhance biosecurity practices and keep their birds in barns and separate from wild waterfowl. An outdoor exemption advisory notice has also been sent to organic certifiers to allow for producers to house poultry indoors during this high-risk time, and the

notice can be found on the <u>CDFA HPAI website</u>. Let's do our part to keep this virus out and mitigate any damage from it reaching our domestic poultry!

# Calling All Southern California Backyard Poultry Owners! – CAHEN Update

By: Alexi Haack, DVM, CAHEN Program

The California Avian Health Network (CAHEN) is back with an update on our expanding coop! We have developed a great deal since we were first hatched in Summer 2020 as we continue to fulfill our mission to prepare and protect California poultry owners from a future disease outbreak.

**National HPAI Outbreak:** One of our primary roles at CAHEN is to prepare and respond to avian disease outbreaks. While California is thankfully still free of the Highly Pathogenic Avian Influenza (HPAI) currently affecting the Midwest and Eastern states, we are actively watching and packaging new information for California poultry owners through a social media campaign and easy to read infographics on the Avian Health CDFA Webpage. Check them out on Instagram <a href="mailto:@CAHENsocal">@CAHENsocal</a>!

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Backyard Assurance Program: Another one of our roles is continued surveillance through testing poultry flocks in California. We have recently opened our Backyard Assurance Program for poultry flocks of 20+ birds! Voluntary enrollment gives Southern California Backyard Poultry Owners access to free Avian Influenza and virulent Newcastle Disease testing up to 4 times a year and on-site biosecurity training and advice to keep their flock safe. Members will receive a certificate indicating they are participants in our disease surveillance testing. Within the first 3 months of outreach, we already have over 30 participants! If you know someone who qualifies and would be interested in the program, they can reach out at any of our social medias, email CDFA.AHFSS\_CAHEN@cdfa.ca.gov, or call our Sick Bird Hotline at 866-922-2473.

That is a small snapshot of the work we do at CAHEN to keep southern California poultry owners informed and protected from lurking avian diseases. You can find us in-person at upcoming southern California Fairs, or you can always reach out to us while we are fussing at the coop incubating and hatching some egg-cellent plans!



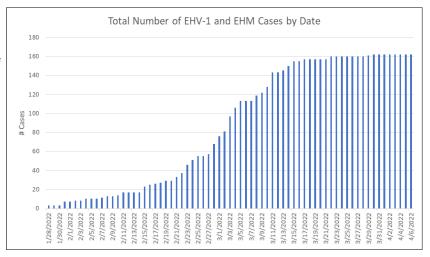
# EHV-1: The Challenge of Endemic Disease Control and Outbreak Management

By: Dr. Emily Nietrzeba, DVM, MPH, Equine Program

This year has proven to be challenging for EHV-1 detections and Equine Herpesvirus Myeloencephalopathy (EHM) in California's equine populations. Multiple concurrent outbreaks have challenged not only state animal health officials but equine veterinarian responders, event managers, and horse owners throughout the state. The cooperation

and assistance from the veterinary and equine community during these outbreaks has been truly remarkable, and the California Department of Food and Agriculture (CDFA) highly values the support and expertise from California's equine veterinarians as integral parts of statewide emergency responders to animal disease incursions and disasters.

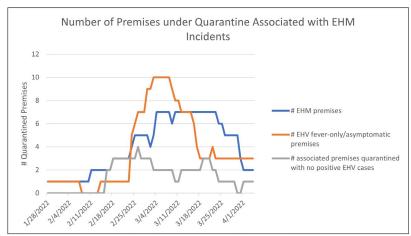
EHV-1 is an endemic viral pathogen in equine populations, and most horses have been exposed to



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this virus at a young age. As a member of the herpesvirus family, EHV-1 can remain latent indefinitely within host neural and lymphoid tissues following primary infection, and triggers for reactivation are not fully understood, but external stressors like transportation and rigorous competition schedules play a role. Vaccination can decrease severity of clinical signs and decrease viral shedding, but no product is labeled against neurological manifestations of EHV-1 infection. While there are correlations between EHV-1 infection and EHM, such as high viral loads, viremia (virus in the bloodstream), and immune-compromising conditions, there is no current definitive means to accurately predict if a horse with active EHV-1 infection will become neurological. Analysis of previous multiple EHM outbreaks has clearly demonstrated that both the "neuropathogenic (NEHV-1)" and "non-neuropathogenic (wild-type)" EHV-1 strains are both capable of causing EHM-related outbreaks.

CDFA's regulatory authority is defined by the conditions on California's <u>reportable disease list</u>, which is annually reviewed by state animal health officials, veterinarians, subject matter experts, and health advisory committees. Due to the endemic nature of this viral disease, CDFA mandatory quarantines are limited to specific disease incursions that carry the highest risk of spreading disease, which includes EHM, EHV-1 infection with neurological manifestations. EHM was placed on California's regulatory conditions list as a result of equine industry concerns, while EHV-1 remains a monitored condition. EHV-1 infection without neurological signs—which can include clinical symptoms like fever, upper respiratory signs, or a positive EHV-1 lab result in a horse with no clinical signs—is a monitored condition in California that does not mandate a state quarantine.



EHM disease control measures applied by CDFA during these incidents include mandatory quarantine of premises with confirmed EHM, and mandatory quarantine of any positive EHV-1 detections associated with known or possible exposure to an EHM case within 14 days. CDFA has also been supporting veterinarians and facility managers with voluntary quarantines at premises where there are non-neurological EHV-1 detections not directly epidemiologically linked to an EHM case. A letter written

jointly by CDFA and USDA was distributed to accredited equine veterinarians recommending they follow equine event best practices recommendations when issuing equine certificates of veterinary inspection. Also, a <u>letter</u> and an <u>extension</u> <u>letter</u> of caution recommending temporary postponement of equine events and non-essential movements were issued by the State Veterinarian and widely distributed to equine stakeholders. An additional <u>letter</u> by the State Veterinarian was distributed after the caution letters were sent encouraging event venues and owners to follow recommended infectious disease prevention practices, as well as rapid isolation and containment of suspected infectious horses.

It is also important to re-emphasize that EHV-1 and EHM response policies, both in California and throughout the U.S., are **disease control programs**, **not eradication programs**. Our understanding and response to this virus continues to evolve. Recent high-profile incidents have challenged the equine industry and researchers to better understand and mitigate transmission risks, as well as to create informed and effective management policies. Later this year we look forward to hosting a California Equine Summit for practitioners, researchers, industry representatives, and state animal health officials with special emphasis on EHM and EHV-1 response and developing EHM task force initiatives with national and international equestrian federations, subject matter experts, and equine event managements.

Equine veterinarians and equine owners share in the responsibility of disease control for challenging endemic disease agents like EHV-1, and CDFA supports the equine industry in continuing to take this responsibility seriously on a day-to-day basis, not just in the face of an outbreak.

### Foreign Animal Disease Investigations January 1- March 31, 2022

By: Alireza Javidmehr, DVM, MPVM, PhD

California invests considerable resources to protect the livestock industry against Foreign Animal Disease (FAD)\* outbreaks. Diagnosticians investigated 147 FAD suspicious cases (Table 1) between January 1 and March 31, 2022. Almost 94% of these investigations were to rule out Foot and Mouth Disease (FMD) in pigs shipped to slaughterhouses in California. In all of these cases, lesions were caused by Senecavirus A (SVA). SVA infection is an endemic disease in the US; however, it triggers an FAD investigation due to the similarity of lesions to FMD. Any animal diseases presenting similar signs to FADs must be treated as such until an FAD can be ruled out.

All Emergency conditions listed in the <u>California reportable animal disease list</u> must be reported to the local animal health authorities within 24 hours. The AHB district offices' contact information is listed on the last page of this newsletter, as well as on the reportable disease list.

Table 1. Summary of FAD investigations from January 1 to March 31, 2022

AHB Districts	Disease	Species	Sample Type	Number of Investigations	Destination Lab**	NVSL Result
Modesto	Foot and Mouth Disease (FMD), Senecavirus A (SVA)	Porcine	Swab	125	CAHFS-Davis	All positive for SVA
	African Swine Fever (ASF), Classical Swine Fever (CSF)	Porcine	Tonsils	1	NVSL, CAHFS- Davis	Negative
	Schmallenberg	Caprine	Swab	1	NVSL, CAHFS- Davis	Negative
	Vesicular Stomatitis Virus (VSV)	Equine	Swab, Serum	2	NVSL, CAHFS- Davis	Negative
Redding	VSV	Equine	Blood	2	NVSL, CAHFS- Davis	Negative
Tulare	FMD, SVA	Porcine	Swab	13	NVSL, CAHFS- Davis	All positive for SVA
	Swine Influenza	Porcine	Carcass	1	NVSL, CAHFS- Davis	Negative
	FMD, VSV	Bovine	Blood	1	NVSL, CAHFS- Davis	Negative
	FMD, VSV	Caprine	Swab	1	NVSL, CAHFS- Davis	Negative

<sup>\*</sup> A disease that is not currently found in the United States

CAHFS: California Animal Health and Food Safety Laboratory

<sup>\*\*</sup>NVSL: National Veterinary Services Laboratory

### **Emergency Animal Mortality Management Training**

By: Jennifer Leslie, EPRS Program

The University of Maine Emergency Response Carcass Management Train the Trainer course was held at the UC Davis Veterinary Medicine Teaching & Research Center in Tulare, CA on March 21-24, 2022. California was selected to host this course for the western United States. Several state and federal regulatory agencies participated in the training including CDFA, USDA, Washington State Department of Ecology, and Arizona Department of Agriculture, as well as representatives from both the poultry and livestock Industries.

Presentations, classroom exercises, and handson field demonstrations included topics on emergency response, the Incident Command System (ICS), animal mortality management, farm assessment, zoonotic diseases,



Photo Credit: Ricardo Gaitan, CDFA MPES; Carcass Compost Field Day Tulare 2/15/22

farm biosecurity and personal protective equipment (PPE). Compost-specific topics included the biology of compost, compost feedstocks, equipment for emergency operations, principles of windrow construction, pathogen reduction and elimination principles, environmental criteria for compost windrows, compost pile recipe assessment, troubleshooting, and carcass degradation/temperature assessment. The many hands-on exercises in the training allowed participants to immediately implement learning objectives and observe in-progress compost, as well as construct actual compost piles in a field setting.

Participants who completed the training and passed the exam are eligible to become Subject Matter Experts (SME) on a national roster for emergency response. Having compost SMEs in California will allow us to effectively consider composting as a carcass management option.

### Antimicrobial Use & Stewardship Program Updates

By: AUS Branch



AUS recently released its <u>2021 Annual Report</u>, which presents details of AUS' work in FY 2020-2021. Of note, AUS is proud to continue its strong collaborations with academic researchers in the field of livestock antibiotic resistance, including award-winning, AUS-funded research that received recognition from the National Institute of Antimicrobial Resistance Research and Education last year. In total, AUS-funded researchers published <u>10 peer-reviewed publications</u> this past fiscal year, increasing the specific knowledge of antimicrobial resistance and stewardship practices in California livestock sectors. Through these peer-reviewed publications and AUS' other outreach materials and activities, transparency and reporting are achieved for both the scientific community and AUS' stakeholders.

### Swine Health Improvement Plan (SHIP)

By: Hector Webster, DMV, MS, Swine & Small Ruminant Programs

The US Swine Health Improvement Plan (SHIP) is modeled after the very successful National Poultry Improvement Plan (NPIP) that has been in place since 1935. US SHIP is intended to provide a national program for certifying the health status of swine and is initially focused on mitigating risks for African Swine Fever (ASF) and Classical Swine Fever (CSF). Our state has committed to participating in <u>US SHIP</u> and we encourage all of our swine producers to enroll their production and packing site(s) in this unique program. Industry and state representation from different states attended the inaugural US SHIP House of Delegates in August 2021, and approved the initial requirements for certification in the program.

The benefits of US SHIP enrollment include:

- Strengthened ASF/CSF preparedness (prevention, response, and recovery) for our state.
- Establish a uniform biosecurity, traceability, sampling/testing approach across participating states under normal conditions as well as during disease outbreaks.
- Participation in a collaborative industry (producers/packers), state, and federal program in which producers can help establish appropriate standards for health certification.

Enrollment in US SHIP is by site and fairly straightforward. Visit the <u>U.S. Swine Health Enrollment Plan</u>, and:

- · Complete the enrollment form (either single premise or multi-premise form).
- Complete the biosecurity enrollment survey provided after you submit your enrollment form.
- Show ability to provide 30 days of swine movement records in an electronic format.

## Harmful Algal Blooms Pose Illness Risk to Humans and Animals

By: The California Interagency HAB-related Illness Workgroup

When cyanobacteria (also known as blue-green algae) and algae in freshwater and estuarine waterbodies occur at levels that pose a risk to humans, animals, and the environment, they are referred to as <u>freshwater harmful algal blooms (FHABs)</u>. Humans and animals can become sick after ingesting or contacting cyanobacteria, algal mats, or water contaminated with cyanotoxins, the harmful chemicals produced by cyanobacteria. Signs and symptoms may occur within minutes or days following exposure and may include:

- irritation of skin, ears, eyes, nose, or throat;
- abnormal breathing (coughing, wheezing, asthma-like symptoms);
- vomiting, diarrhea, abdominal pain;
- headaches, agitation, weakness;
- · seizures and death (in animals).

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All animals are at risk of poisoning from cyanotoxins. Particularly, <a href="livestock">livestock</a> can be poisoned by ingestion of algal material either in the water or as dried mats on the shore, or from drinking water where algal decay has released considerable toxins into the water. Poisoning will depend on the levels of cyanotoxin that are present and ingested, the susceptibility of the livestock, and the amount of food in the animal's gut, which will help counter the effect of the toxin. Livestock water supplies should be checked daily in summer and autumn for algal blooms. When visible algal blooms are present, treat them as possibly toxic to livestock and prevent animals from accessing them unless the algae are identified, and the level of toxin is determined to be safe.

The Interagency HAB-related Illness Workgroup investigates and tracks all reported potential HAB-related illnesses in humans and animals throughout California, and includes staff from the Office of Environmental Health Hazard Assessment, State Water Resources Control Board, California Department of Public Health (CDPH), and the California Department of Fish and Wildlife. From 2018-2020, CDPH reported 71 FHAB-related human and animal illnesses from California to the Centers for Disease Control and Prevention's One Health Harmful Algal Bloom System (OHHABS).



Please report any suspected FHAB or potential HAB-related illness by any of these methods:

- Fill out the Online Bloom Report Form including the illness information section;
- Call (844) 729-6466 (toll free);
- Email CyanoHAB.Reports@waterboards.ca.gov.

Learn more on the California HABs Portal and also with these resources:

- Visual Guide Factsheet for HABs
- Animal Health and HABs
- Resources for Veterinarians
- Human Health and HABs
- Resources for Medical Professionals

### **AHB Staff Biographies**



**Dr. Kaylee Lashnits** has had a love of horses her whole life which was the push to become an equine veterinarian. Attending the University of Wisconsin-Madison, she graduated with an undergraduate degree from the College of Agriculture in Animal Sciences, completed two years of graduate studies in Animal Nutrition, and graduated from the University of Wisconsin School of Veterinary Medicine in 2007. An Equine Internship brought her to the central valley of California which then became home. In 2011, she started a mobile equine practice based out of Tulare California and enjoyed private practice until this past year. It was time for a change. Dr. Lashnits is excited to have joined the Animal Health Branch in January 2022 to continue to work in the veterinary industry in a different way, by working to promote livestock health on a larger scale. Moving into regulatory veterinary medicine was a great next step and allows more enjoyment time with her dogs and horses.

For fun growing up, Dr. Lashnits spent all her free time riding hunter/jumpers and dressage. After moving out west, she learned a new equestrian discipline and started riding on a drill team in rodeos and drill competitions. Taking her pups, Shelby and Pixley, out to the beach for running and relaxing is another favorite past time. Dr. Lashnits looks forward to continuing the enjoyment of life and work in California.

**Dr. Kavishti Kokaram** grew up on the little Caribbean island of Trinidad. Deciding that he should broaden his horizons and be an adventurer, he pursed a Bachelor's degree in Marine Ecology and Chemistry at the University of Maine and got his DVM degree at Tufts University, Cummings School of Veterinary Medicine in Massachusetts in 2007. He recently became a Diplomate of the American College of Veterinary Preventive Medicine in 2021.

Dr. Kokaram practiced predominantly in food animal medicine for 14 years initially in the Northeast and then finally settled in the Central Valley for the past 9 years as a veterinary partner and director of lab services. Dr. Kokaram's areas of interest in practice were field surgery and anesthesia, herd health management and problem-solving with emphasis on transition cow management and early calf-

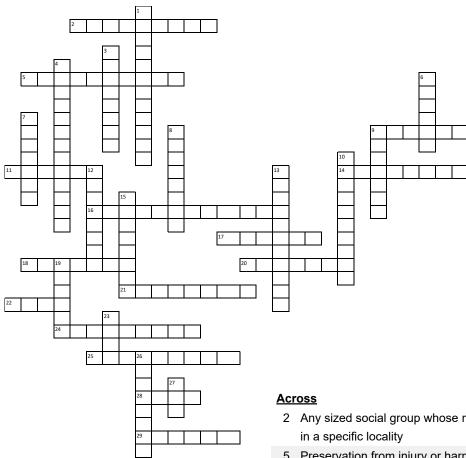


care/replacement heifer programs, vaccinology, and small ruminant and camelid medicine. While in private practice, he also was involved in opening a low cost spay/neuter clinic in the Central Valley and served on the Animal Health advisory board with the county for many years. Prior to joining CDFA's Animal Health Branch as the Bovine Specialist in January of 2022, Dr. Kokaram had a brief stint as a technical services veterinarian with a new animal health company promoting judicious antimicrobial usage in livestock. Dr. Kokaram's experience within the livestock industry has also had a carryover effect into his position in the US Army Reserves in providing Agricultural support to local host nation agencies and insight on public health and preventive medicine. His involvement in stability operations over these past 10 years has since fueled his interest in emergency management and disaster response.

In his free time, Dr. Kokaram is usually either hiking with his kids, kayaking, paddleboarding, wine tasting or playing with bucking bulls.

### Crossword Puzzle: Animal Health Terms

By: Mandy Johnson, Senior Emergency Services Coordinator



#### <u>Down</u>

- 1 Continuous observation of a place, person, group, or ongoing activity
- 3 An occurrence or event
- 4 Imparting or exchanging thoughts, opinions, or information by speech, writing, or signs
- 6 To bring up to date as by adding new information or making corrections
- 7 Illness, sickness, ailment
- 8 Trade or manufacture in general
- 9 Cautious in one's actions
- 10 A campaign, mission, maneuver, or action
- 12 An act or instance of disposing of something
- Measures aimed at preventing the introduction and/ or spread of harmful organisms
- 15 To have need of
- Any such living thing other than a human being
- 23 A number of persons associated in some joint action
- 26 An answer or reply
- 27 Any place conducive to experimentation, investigation, observation, etc.

- 2 Any sized social group whose members reside
- 5 Preservation from injury or harm
- 9 Alertness and prudence in a hazardous situation
- 11 Unavoidable danger or risk
- 14 A piece of land together with its buildings
- 16 The state of being ready
- 17 To free or deliver from confinement, or danger
- A large van or wagon used to haul freight, including animals
- 20 Relating to, or derived from another country or nation
- 21 A region or locality
- 22 A tract of land on which crops and livestock are raised for livelihood
- 24 Horses, cattle, sheep, and other useful animals kept on a farm or ranch
- 25 Sudden, urgent, usually unexpected occurrent or occasion requiring immediate action
- 28 A scheme or method of acting in advance
- A small part of anything, intended to show the quality, style, or nature of the whole

### **Contact Information**



### State Veterinarian and

Director, Animal Health and Food Safety Services

Dr. Annette Jones (916) 900-5000

#### Other AHFSS Branches

Bureau of Livestock Identification John Suther, Chief (916) 900-5006

Milk and Dairy Food Safety Dr. Stephen Beam, Chief (916) 900-5008

Meat, Poultry and Egg Safety Paula Batarseh, Chief (916) 900-5004

Antimicrobial Use and Stewardship Dr. Edie Marshall, Chief (916) 576-0300

> Animal Care Dr. Elizabeth Cox, Chief (916) 900-5000

### **United States Department of Agriculture**

Dr. Donald Herriott District Director, District 3

Dr. Larry Rawson Assistant District Director, District 3 (CA/HI)

USDA, APHIS, VS, SPRS (916) 854-3950/Toll Free: (877) 741-3690

#### **Animal Health Branch**

Dr. Anita Edmondson, Chief Headquarters: (916) 900-5002 Fax: (916) 900-5333 Permit Line: (916) 900-5052

California Department of Food and Agriculture Animal Health and Food Safety Services Animal Health Branch 1220 N Street Sacramento, CA 95814

### District Offices Veterinarian In Charge (VIC)

Redding: Dr. Michael Poulos 2135 Civic Center Drive, Room 8 Redding, California 96001 (530) 225-2140

Modesto: Dr. Randy Anderson 3800 Cornucopia Way, Suite F Modesto, California 95358 (209) 491-9350

Tulare: Dr. Gregory Ledbetter 18760 Road 112 Tulare, California 93274 (559) 685-3500

Ontario: Dr. Alisha Olmstead 1910 South Archibald Avenue, Suite Y Ontario, California 91761 (909) 947-5932

Website: www.cdfa.ca.gov/ahfss/Animal\_Health/Index.html Email: ahbfeedback@cdfa.ca.gov