

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.



CALIFORNIA DEPARTMENT OF
FOOD & AGRICULTURE

Animal Health Branch Newsletter

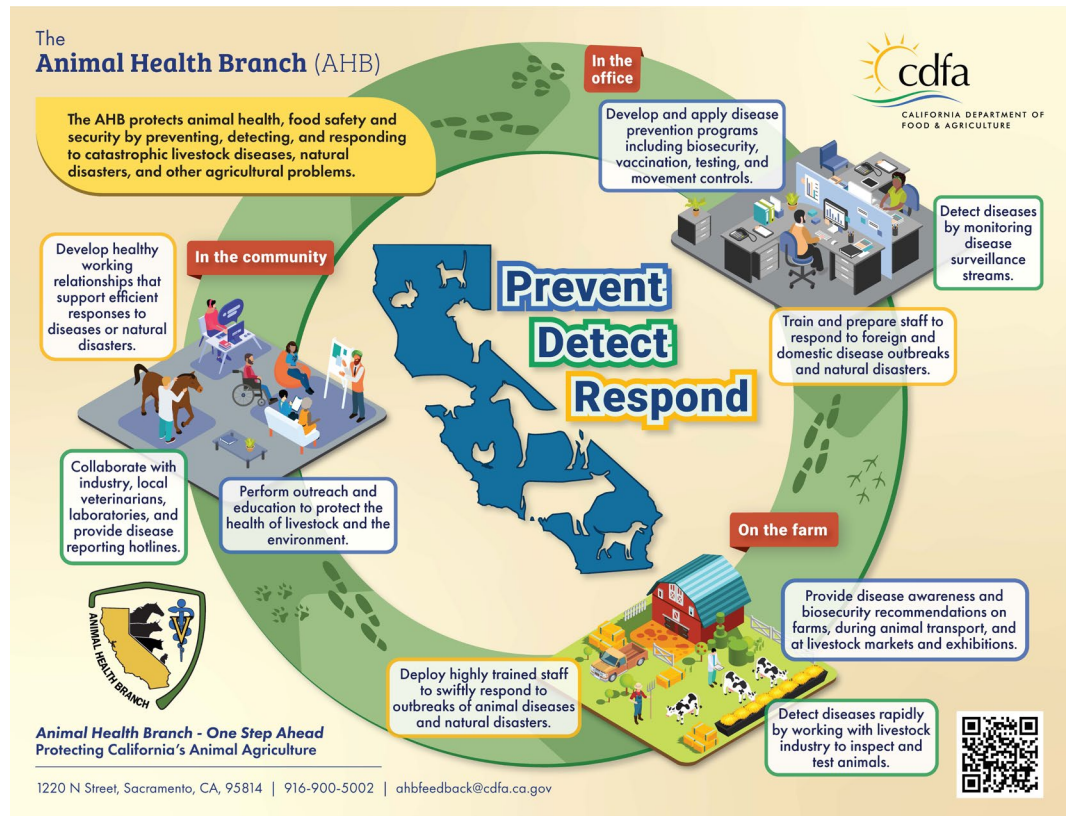
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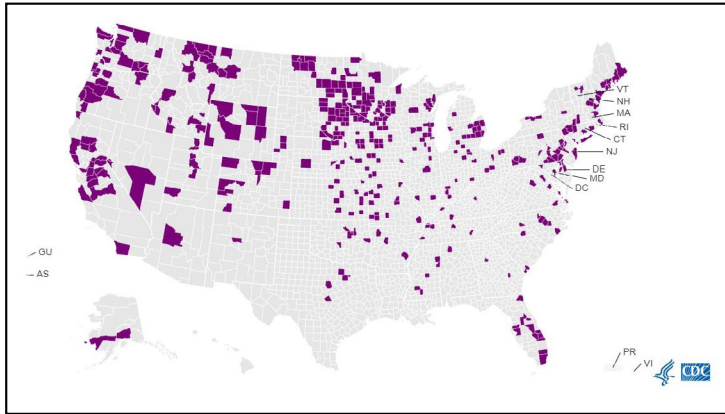


Highly Pathogenic Avian Influenza Outbreak Update

By: Felicia Pohl, Research Scientist, Avian Section

Cases of Highly Pathogenic Avian Influenza (HPAI) continue to be detected in the United States in both domestic and wild birds. As of March 23, 2023, HPAI has been documented in 809 domestic flocks in 47 states (with approximately 58.65 million birds affected). In addition, over 6,467 wild bird cases have been detected. Some of the wild birds affected include geese, ducks, pelicans, turkey vultures, hawks, swans, and owls. In some states, there have even been some mammals (e.g. foxes, raccoons, skunks, seals, etc.) that have been affected (most likely from scavenging

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[Map: H5N1 Bird Flu Detections across the United States \(Backyard and Commercial\) | Avian Influenza \(Flu\) \(cdc.gov\)](#)

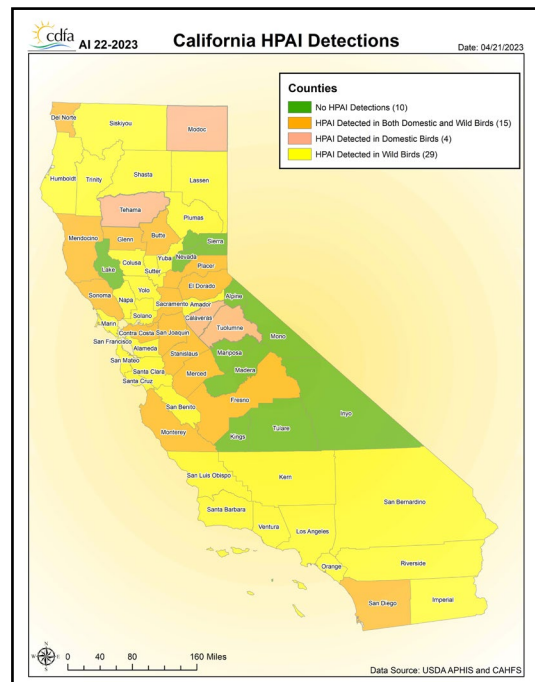
on infected birds). For an up-to-date list of confirmed cases in the United States, please visit: [USDA APHIS | 2022 Detections of Highly Pathogenic Avian Influenza](#).

The most recent domestic HPAI detection in California was on April 12th in a backyard flock in Modoc County. In total, California has had 36 infected domestic flocks (16 commercial, 20 backyard/non-commercial) in 19 counties. In addition to domestic flocks, HPAI has been detected in wild birds in 44 counties. It is important to note that HPAI has been widespread in California and may also be present, especially in wild waterfowl, in other counties that are not

listed (if no wild birds have been submitted for testing). For information on current HPAI control areas (affected zones that may require permits for movement of poultry/poultry products), see the [California Quarantine Permit infographic](#).

Avian influenza is a highly contagious and often fatal disease in birds. The disease is spread through movement of infected or exposed birds, direct or indirect contact with infected wild and/or domestic birds, or contact with the virus on fomites (surfaces or objects) such as hands, shoes, clothing, or feet, and hair of rodents and other animals. It is critical for poultry owners to be vigilant and take proper measures to prevent disease (biosecurity) and protect their birds. Here are some **avian biosecurity recommendations**:

- Prevent contact between domestic and wild birds by bringing your birds into an enclosure that is covered.
- Wash your hands before and after handling your birds. This includes when handling birds from coop to coop.
- If you have bodies of water on your property such as ponds or ditches, consider draining them to avoid attracting wild birds, and keep your domestic birds away from this potentially contaminated water.
- Use sanitized well or city water for your birds.
- Prevent rodents and predators from entering your coop.
- Prevent pets such as cats and dogs from eating dead wild birds.
- Keep feed covered and spills cleaned up to avoid attracting wild birds and rodents.
- Wash and disinfect boots and equipment when moving between coops.
- Do not share equipment or supplies with neighbors.
- Clean and disinfect equipment and other supplies between uses.
- Clean and disinfect your shoes and vehicle tires after visiting feedstores and other places frequented by other poultry owners or wild bird hunters.



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- Avoid visiting places where wild birds congregate such as lakes and ponds.

Monitor your birds for the following symptoms:

- Trouble breathing
- Clear, runny discharge from nose, mouth, and eyes
- Lethargy or lack of energy
- Loss of appetite
- Decreased egg production
- Drinking less
- Swollen eyes, head, wattles, or combs
- Discolored or bruised comb, wattles, or legs
- Stumbling, falling, or twisted neck
- Sudden death

Poultry owners with flocks that have experienced any unusual/suspicious illness or deaths should call our CDFA Sick Bird Hotline at 866-922-BIRD (2473).

Please report any unusual or suspicious dead wild birds to the California Department of Fish and Wildlife [Mortality Reporting website](#). If you have questions about wildlife rehabilitation, please contact the California Department of Fish and Wildlife directly. Contact information is available on the [Avian Investigations website](#).

The Eurasian H5N1 HPAI strain currently circulating in the United States poses low risk to humans, and poultry and eggs remain safe to eat when properly prepared as per normal food safety guidelines.

For more information and updates, please visit our [CDFA Avian Influenza webpage](#).

The Last Students of Plum Island's Foreign Animal Disease Diagnostician Training

By: Dr. Alexi Haack, DVM, CAHEN Group

To prepare state and federal veterinarians for the event of a Foreign Animal Disease (FAD) outbreak within the United States, many are sent to New York's Plum Island Animal Disease Center. This island is shared between the US Department of Homeland Security and the US Department of Agriculture (USDA), to conduct research, vaccine development, and training in animal diseases that could severely disrupt US animal agriculture. Recently, CDFA veterinarians were given the opportunity to attend one of the last sessions of the Foreign Animal Disease Diagnostician (FADD) course at Plum Island and wanted to share more about the island and training.

Locals in New York and Connecticut share a sense of mystery about Plum Island. In the imagination of many, it houses secret government research akin to Area 51, and many fictional stories have been created around it such as the mythical "Montauk Monster". In reality, the island had historically been accessible to employees during work breaks and hosted tours for the public and local school children, but was placed under increased security after 9/11 because it is a potential high-risk target for agro-terrorism. The island is pockmarked with old, abandoned buildings and bunkers from when it was home to Fort Terry in the early 1900's, but is otherwise an undeveloped coastal area with two freshwater marshes that are home to many native birds, reptiles, and fish.

In 1954, the island was given to USDA to support research into Foot and Mouth Disease (FMD) due to the growing need to prevent outbreaks and the unique isolation of the island that supported the containment of disease research. USDA originally used some of the Fort Terry buildings for labs and offices and a cafeteria. They quickly moved into the newly constructed Building 101 in 1956 where they continue to test samples submitted from veterinarians for diseases of great concern to US animal agriculture such as, FMD, virulent Newcastle Disease, Sheep Pox, Heartwater,

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Peste de Pestis Ruminants, African and Classical Swine Fever, and the newly emerged Rabbit Hemorrhagic Disease among others. The lab at Plum Island is vital to quickly identifying such diseases, and in the case of an introduction into the US, helping generate vaccines and information on mutations to prevent the unchecked spread of these diseases.

At Plum Island, veterinarians underwent extensive instruction on how to identify FADs of high concern, received training on sample collection, and gained experience in the high standards of biosafety that prevent diseases from leaving lab containment. Doors are hermetically sealed, air and waste are treated and tested before release, and long, impeccably cleaned hallways separate clean areas from contaminated areas. Additionally, there is a complicated process for exiting the facility through multiple showers, a daily ritual for Plum Island staff.

More recently, the cost of maintaining and updating the island research facility to the strictest standards for biosafety came under scrutiny. The island facility is slated for closure in 2023 and a new state-of-the-art facility in Manhattan Kansas, the National Bio- and Agro-Defense Facility (NBAF), will be the future home for the research, testing, and training that has been conducted at Plum Island Lab since 1954. The future of Plum Island itself is uncertain, as no governmental agency has agreed to take charge of it. Hopefully this unique place can be opened to the public as a historic site, for Plum Island has a rich history, has helped protect the US from unchecked outbreaks of animal disease for more than 70 years, and deserves a happy retirement.

Foot and Mouth Disease – Is California Prepared?

By: Kavishti Kokaram, DVM, DACVPM, Bovine Specialist

Foot and Mouth Disease (FMD) is a debilitating disease of livestock and is considered the most highly contagious viral disease of cloven-hoofed animals, affecting both domestic and wildlife species. Clinical signs commonly seen in cattle are drooling, lip smacking, and lameness, all caused by blisters (vesicles) on the tongue and lips, dental pad, teats and/or feet. Sheep and goats have similar but less pronounced clinical signs. Pigs often have fever, snout blisters, severe lameness, sloughing of hooves, salivation, and abortion. While FMD is not a public health risk, it would have dramatic widespread economic and international trade implications if detected here in the U.S. with costs ranging from \$2 billion to more than \$200 billion, depending on the extent of the outbreak.

FMD remains widespread globally and is endemic in many countries. While North America is currently free of the FMD virus, this status could easily and rapidly change with a breakdown in surveillance and awareness. Many of the national and state response plans for FMD are currently being reviewed and reassessed to determine our national readiness to respond quickly and decisively following an outbreak. Disease response must be in a manner that not only quickly returns the nation to a disease-free status but is also balanced against the needs and nuances of our cattle industry and maintains continuity of business.



There have been recent discussions at both the state and national level to refine existing response plans for livestock following the initial 72-hour mandatory national standstill of all susceptible species and germplasm that would be put into place following a detection. The first case of FMD in the U.S. may only be the first case discovered; as the actual first case detected in the U.S. could have already spread from an initial infected premises to other premises. It is essential to not only conduct rapid surveillance and associated trace investigations to fully map the extent of the virus spread but to also have measures rapidly in place to protect various sectors of the industry to ensure continuity of business and minimize disease impact.

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With all of the above in mind, the ability to trace the movements of any and all susceptible species in the industry from herd of origin to final disposition is critical. Traceability is essential in order to rapidly assess the extent of potential spread of the virus and establish appropriate regional disease status designations (eg “State with No Detections,” “FMD Affected State,” FMD Monitored State,” etc.). Ensuring all animals are individually identified is integral to this traceability. It is equally vital that livestock operations have a documented and easily executed Enhanced Biosecurity Plan (EBP) in place to enacted during an outbreak. While the EBP is an essential component for premises within a Control Area, it is equally as important for those in unaffected areas to maintain freedom from disease and continued free movement of livestock products and trade operations.

The widespread economic and international trade impacts of an FMD detection in the U.S. underscore the importance of not only a rapid response to stamp out a detection but also the need to demonstrate freedom from disease following a detection to maintain integrity of the livestock industry and continuity of business and trade.

Japanese Encephalitis – An Emerging Threat?

By: Kavishti Kokaram, DVM, DACVPM, Bovine Specialist



This past year Australia identified an emerging outbreak of Japanese Encephalitis Virus (JEV) in piggeries across their eastern seaboard and extending southward affecting operations in Victoria, Queensland, South Wales, and South Australia within a concerning 24–48-hour timeframe. Historically, Australia had considered the northernmost tip of Queensland to be the only area of concern for JEV. Upon investigation, many of the affected farms had initially only noticed mild increases in abortions and delayed farrowing (>118 days) in apparently healthy sows but were soon followed by the presentation of piglets with various congenital defects including mummification, cranial abnormalities, subcutaneous edema, and lack of obvious brain tissue on necropsy. There have also been seven (7) human deaths associated with this current JEV outbreak.

JEV is a zoonotic mosquito-borne Flavivirus closely related to West Nile, Dengue, and Zika viruses, and is endemic to much of Asia and the western Pacific. It is a Foreign Animal Disease (FAD) in the US, and is listed as an Emergency Condition on the [California List of Reportable Diseases](#). JEV has been associated with reproductive losses and encephalitis in pigs and horses. While the mortality rate in adult swine is typically close to zero, infected piglets with no immunity will have near 100% mortality. Reproductive losses on a piggery can be as high as 50-70% which can have a devastating economic impact on that operation. JEV can also affect a variety of other species and is the leading cause of human viral encephalitis in the world.

JEV transmission is primarily via mosquito vectors (mostly *Culex* spp. but can also include *Aedes albopictus*; which can be found here in California). While the main natural reservoir for the virus is wading ardeid waterbirds such as herons and egrets, pigs act as an amplifying host for the virus with extremely high and prolonged viremias. In endemic areas, big infections typically preceded human epidemics by 30 days. All other species, including humans, are considered “dead-end” hosts and do not typically contribute to the transmission of the virus.

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The concern for JEV introduction into the US has increased in the last year. The detections of JEV in Australia highlights the need for continued vigilance in a global agricultural economy, similar to increased vigilance to prevent introduction of African Swine Fever virus into the US. The heightened level of concern regarding JEV introduction into the US, and specifically California, highlights that we have all the necessary components for ready transmission of the virus: competent mosquito vectors, susceptible natural (avian) hosts, and a susceptible amplifying host (feral swine) of unknown distribution and population size in close proximity to both humans and swine production facilities. Clinical signs can easily be mistaken for other production diseases of swine. Much like the case with ASF, maintaining freedom from JEV is dependent upon our continued surveillance and diligent awareness of this condition.

Pro Tips for a Successful Equine Spring Break

By: Emily Nietrzeba, DVM, MPH Equine Section Lead

The spring months at last offer some promise of improving weather and the excitement of upcoming shows, much needed trail time, and travel with equid companions for work and pleasure; we take this opportunity to share some reminders for smooth and successful trips in the upcoming months.



PLAN AHEAD!

Start planning well in advance! Make travel and shows plans as far in advance as possible; especially if planning to travel between states.

Always verify with the destination state and event management (if applicable) for any testing requirements or health certifications needed prior to entry. Communicate with your veterinarian regarding your travel plans and have as much information as possible readily available prior to any appointments. Discuss vaccination strategies and boosters with your veterinarian ahead of any planned travel or shows and maintain easily accessible records.

SAFE TRAVELS

Be sure to thoroughly inspect your truck and trailer in advance of any travel and have a routine maintenance plan to keep everything in top shape to avoid accidents while on the road. If using a hauler or transporter service, be sure to check safety history and references prior to booking. Maintain an emergency kit with first aid supplies for both humans and any traveling animals and share your planned itinerary with a trusted individual in case of emergency. Give yourself plenty of time to get to your destination, with ample time for rest stops for all species.

ENTRY REQUIREMENTS

Every state, and most countries, require a negative EIA test (most commonly called a Coggins test) within the past twelve (12) months, but some may require a more recent test within six (6) or even three (3) months. Both ELISA and AGID are approved methods for EIA testing, but the AGID is the gold standard and is the confirmatory test in the event of any non-negative test result. While the EIA ELISA test is often chosen because of the faster turnaround time, there is a low incidence of false positives when using this test so be sure to allow enough time prior to travel must be allowed for a confirmatory AGID test if needed. Many equine events require health certifications, proof of

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vaccination, and/or temperature monitoring logs, some of which must be submitted prior to entry, so be sure to verify the requirements ahead of time to avoid being turned away at the gate.

PRACTICE SAFE BIOSECURITY

When at an event or facility that involves equids from different home populations, it is critical to avoid sharing equipment, tack, and personnel beyond the home cohort to the best extent possible; and avoid nose to nose contact with any equids outside the home cohort. Also, as a routine best practice, any horses returning from an event or facility where horses commingle should be isolated at home for at least seven (7), ideally fourteen (14) days, to the best extent possible, and be monitored daily for any signs of infectious disease, including fever, respiratory signs, or diarrhea.

Be smart, be safe, and have a great spring and summer season!

AHB Avian Veterinarian Specialist Named 2023 PEPA Poultry Scientist of the Year

By: Dr. Annette Jones, DVM, AHFSS Director and State Veterinarian

CDFA Animal Health Branch's own Dr. Sarah Mize has been named the 2023 Pacific Egg and Poultry Association (PEPA) Scientist of the Year in well-deserved recognition of her contributions to the State's poultry industry.



Dr. Sarah Mize

The Pacific Egg and Poultry Association is a regional nonprofit agricultural trade association which has served the egg and poultry industry for over 90 years. Through a united voice and cooperative actions, PEPA enhances the viability of the poultry and egg industries in the eleven Western States and Canada, and its ability to produce and market the highest quality food products to the consumer in a competitive manner.

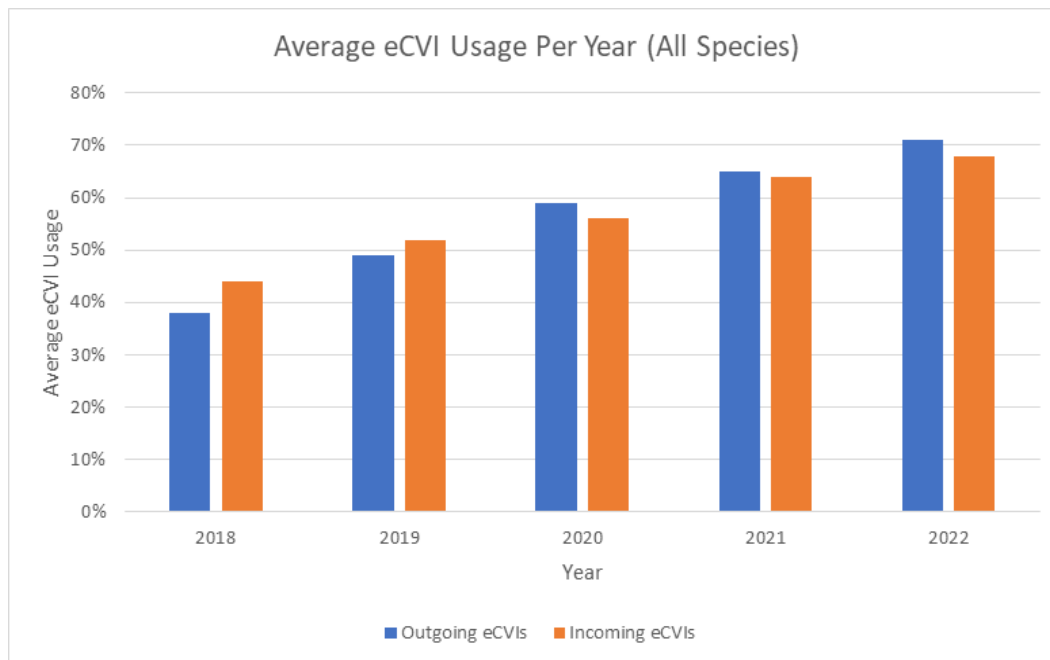
Dr. Sarah Mize is a Veterinarian Specialist with the CDFA Animal Health Branch in Sacramento, California. She received her DVM and Masters of Preventive Veterinary Medicine from the University of California School of Veterinary Medicine at Davis in 1999. She completed the Foreign Animal Disease Diagnostician course offered by the USDA in 2009. During her career with CDFA, she has contributed in a variety of ways, from assisting counties with preparedness for animal issues during disasters, to managing sheep disease control programs, and for a large part of her career, as the Avian Program lead for the State of California.

Dr. Mize has served as the State's lead avian epidemiologist during multiple disease outbreaks, always approaching solutions with practicality, inclusiveness and respect, and with scientific consideration. However, one of her most impressive contributions was as a founding member of the team that established California's Live Bird Market (LBM) disease monitoring and prevention program in 2003. This private-public partnership that Dr. Mize continues to lead is arguably the premier LBM program in the nation, successfully protecting bird health and public health for 20 years. Many thanks to Dr. Mize for her leadership and service!

Electronic CVIs - Recent Trends, Advantages, and Usage in California

By: Kristen Cox, Environmental Scientist, ADT Section

Animal Health Branch Animal Disease Traceability (ADT) staff count and record all Certificates of Veterinary Inspection (CVIs) received by the California Department of Food and Agriculture (CDFA) for imported and exported livestock species (dairy and beef breed cattle, equine, sheep, goats, swine, poultry, and bison/buffalo) to report to the United States Department of Agriculture (USDA) each quarter. Over the past five years, eCVI (electronic Certificate of Veterinary Inspection) use among veterinarians has increased dramatically. In 2018, across all livestock species, only 38 percent of outgoing CVIs (California-origin animals leaving the state) and 44 percent of incoming CVIs (animals from another state entering California) were electronic. In 2022, 71 percent and 68 percent of outgoing and incoming CVIs, respectively, were issued using an electronic form. This translates to an increase in eCVI use of 33 percent by California veterinarians and 24 percent by out-of-state veterinarians. Electronic movement documents are now the most common method chosen by California veterinarians when issuing CVIs.



Outgoing eCVI Usage			
Species	2018	2022	Total Increase
Cattle (Dairy and Beef Breeds)	36%	68%	32%
Equine	43%	72%	29%
All Other Livestock (Sheep, Goats, Swine, Poultry, Bison/Buffalo)	20%	67%	47%
All Species	38%	71%	33%

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Incoming eCVI Usage			
Species	2018	2022	Total Increase
Cattle (Dairy and Beef Breeds)	36%	57%	21%
Equine	50%	73%	23%
All Other Livestock (Sheep, Goats, Swine, Poultry, Bison/Buffalo)	35%	61%	26%
All Species	44%	68%	24%

To further advance traceability and support USDA's and CDFA's goal of increased eCVI usage throughout the state, CDFA encourages accredited veterinarians to utilize eCVIs whenever a CVI is required for interstate or intrastate movement of animals. eCVIs have several advantages over traditional paper forms, including:

- Immediate transmission to both the origin and destination state upon issuance so information is available in close to real-time
- Decreased transcription errors
- Increased legibility
- Improved efficiency providing documents to all parties involved in the movement (consignor, consignee, carrier, etc.)
- Electronic storage of documents and client and animal information
- Increased accuracy with internal checks for some platforms (ex: fields cannot be left blank)
- Entry permit exemptions for some states with select eCVI service providers
- Increased processing efficiency

In more recent years, the number of third-party eCVI service providers has also increased. These eCVI providers are not representative of the state and CDFA does not endorse any eCVI providers, but the following platforms are available to California veterinarians and adhere to USDA data standards:

- [VSPS](#)
- [Smart ICVI](#)
- [GVL \(GlobalVetLink\)](#)
- [Vet Sentry](#)
- [myVetTech](#)

CDFA does not currently have a state-sanctioned electronic form available for use in California-origin animals; however, hard copy paper CVIs are still available upon request to California Category II accredited veterinarians for livestock and poultry. To learn more about eCVIs, visit our [ADT eCVI website](#), or email or call our ADT staff at evet@cdfa.ca.gov or (916) 900-5303.

USDA ADT Proposed Rule Change

By Dr. Kavishti Kokaram, DVM, DACVPM, Bovine Programs Veterinarian and
Kristen Cox, Environmental Scientist

The United States Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) recently released proposed amendments (rule changes) to its animal disease traceability (ADT) regulations. Being able to trace diseased and at-risk animals is critical to ensuring a rapid response when animal disease events take place. Thus, the proposed changes are intended to strengthen the country's ability to quickly respond to animal disease outbreaks as rapid traceability significantly assists in helping contain spread and facilitates an earlier return to commerce.

Some of the salient points in the proposed rule include:

- **Official ear tags must be visually and electronically readable** for interstate movement of specific classifications of cattle and bison.
- **Use of Electronic Identification Devices (EIDs) for official identification.** Instead of requiring approved ear tags to be radio frequency identification (RFID) tags, this change allows for the possibility that different numbering systems or new electronic technologies may be developed and approved by the USDA Administrator to be used in the future for EID ear tags. Visually and electronically readable ear tags would not strictly have to have an Animal Identification Number (AIN) with an 840 prefix in the future. However, at this time, 900 series EID ear tags would still be considered unofficial as they do not meet current USDA standards.
- **Revision and clarification of certain record requirements** related to cattle and bison, including requiring official identification device distribution records to be entered into a tribal, state, or federal database, and made available to APHIS upon request (photocopying, scanning, etc.).
- **Changing the definition of approved tagging sites** to provide additional clarity regarding the nature of these premises.
- **Changing the definition of dairy cattle** to now reference "all cattle, regardless of age or sex, breed, or current use, that are born on a dairy farm or are of a breed(s) used to produce milk or other dairy products for human consumption, or cross bred calves of any breed that are born to dairy cattle".



Interested stakeholders are highly encouraged to view the proposed rule in the [Federal Register](#). The comment period for the proposed rule change began on January 19, 2023, and closed on April 19, 2023, and at this time APHIS is in the process of reviewing all comments and address them in a final rule. The expected timeline for the new rule to be effective would be six (6) months (180 days) following publication of the final ruling into the Federal Register.

National Animal Disease Preparedness and Response Program African Swine Fever Workshop

By: Ghassan Al Bahrani, Staff Services Analyst, and Jessica Dampier, Emergency Services Coordinator, Emergency Preparedness and Response Section (EPRS)

On February 13 and February 14, 2023, the California Department of Food and Agriculture (CDFA) Animal Health Branch (AHB) hosted the National Animal Disease Preparedness and Response Program (NADPRP) African Swine Fever (ASF) Workshop which included United States Department of Agriculture (USDA) Veterinary Services (VS) staff, USDA Wildlife Services (WS) staff and CDFA AHB staff. The workshop focused on three primary objectives:

- Validating responder capabilities to implement advanced planning and strategies,
- Convert strategy to tactics during a Foreign Animal Disease (FAD) response, and
- Ensure continuity in all incident stages (Figure 1).



Figure 1: The lifecycle of an emergency animal disease outbreak response.

ASF is a highly contagious and deadly viral disease affecting both domestic and feral swine of all ages. ASF is not a threat to human health and cannot be transmitted from pigs to humans. It is not a food safety issue. Clinical signs and mortality rates can vary according to the virulence of the virus and the type or species of pig. ASF may be suspected based on clinical signs, but confirmation must be made with laboratory tests, particularly to differentiate this disease from Classical Swine Fever (CSF). Currently there is no approved vaccine for ASF. Lack of an approved ASF vaccine and trade impacts of the disease increases the importance of rapid detection and aggressive measures to stamp out infected herds.

ASF is found in many countries around the world. More recently, it has spread to the Dominican Republic and Haiti, as well as continued to also spread throughout China, Mongolia, and Vietnam, and parts of the European Union. It has never been detected in the United States.

The NADPRP ASF workshop targeted 10 of the 14 USDA VS Foreign Animal Disease response critical activities (Table 1); covering seven modules that encompassed the different stages of the lifecycle of an emergency animal disease outbreak response (Figure 1). During the workshop, all participants were invited to engage in discussion

IMT Activation	Biosecurity
Epidemiological Investigation and Tracing	Communication
Surveillance	Continuity of Business
Diagnostics	Quarantine and Movement Control
Information Management	Appraisal and Compensation
Depopulation	Cleaning and Disinfection
Disposal	Wildlife Management and Vector Control

Table 1: The workshop targeted 10 of the 14 VS critical activities

of each critical activity and consider how state and federal partners would respond in the event of an ASF outbreak in California.

Directly following the workshop, feedback related to ASF preparedness gaps was solicited from participants. Participants were also invited to participate in future workgroups that would convene to address the identified response gaps with the goal of developing an ASF Response Plan for California. An After-Action Report and improvement plan were prepared to document outcomes from the workshop.

Foreign Animal Disease Investigations For Reporting Period December 16, 2022 – March 15, 2023

By: Alireza Javidmehr, DVM, MPVM, PhD, Emergency Preparedness and Response Section

Foreign animal diseases (FADs) consist of dangerous emerging and foreign diseases that may result in far-reaching consequences and require immediate action to contain and control. FADs have either been eradicated from or have never occurred in the United States. A widespread FAD outbreak can disrupt the food supply chain, threaten the nation's food security, and significantly impact international trade. In addition, some FADs can be zoonotic, posing a public health risk. Early disease detection is critical to implementing strategies to contain, control, and eradicate FADs as soon as possible. California invests considerable resources to protect the livestock industry against FAD outbreaks. To learn more about the critical activities when FAD is detected in the state, thirteen infographics and three short video clips have been developed and can be viewed on the [CDFA Preparedness and Response page](#).

To protect California's livestock industry, FAD diagnosticians investigated 103 FAD suspicious cases (Table 1) between December 16, 2022, and March 15, 2023. Almost all investigations (102) 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 a FAD investigation due to the similarity of lesions to FMD. Any animals presenting similar signs to FADs must be treated as such until FADs can be ruled out.

All Emergency conditions listed on the [California reportable animal disease list](#) must be reported to the local animal health authorities (CDFA or USDA) within 24 hours of suspicion or detection. The AHB district offices' contact information is listed on the last page of this newsletter and on the reportable disease list.

Table 1. Summary of FAD investigations from December 16, 2022 to March 15, 2023

AHB Districts	Disease	Species	Sample Type	Number of Investigations	Destination Lab*
Modesto	Foot and Mouth Disease (FMD), Senecavirus A (SVA)	Porcine	Swab	93	CAHFS-Davis
Tulare	FMD, SVA	Porcine	Swab	9	NVSL, CAHFS-Davis
	Schmallenberg	Bovine	Carcass	1	NVSL, CAHFS-Davis

*NVSL: National Veterinary Services Laboratory

CAHFS: California Animal Health and Food Safety Laboratory

AB-888: Mobile Livestock Slaughter — Expanding Local Meat Markets

By: Dr. Fernando Umayam Jr, DVM, Assistant Branch Chief, Meat, Poultry and Egg Safety Branch

Effective January 1, 2022, California law allows for multiple livestock purchased by multiple owners from a livestock producer to be slaughtered on the livestock producer's premises for the new owner(s) of the livestock, provided that certain specified general conditions are met:

- The slaughter must be conducted by a Meat, Poultry and Egg Safety (MPES) licensed Mobile Slaughter Operator (MSO)
- The MSO operator must be a MPES licensed Livestock Meat Inspector (LMI)
- The livestock slaughter must be supervised by an MPES licensed LMI
- The Livestock Producer and all premises where the slaughter occurs must be registered with MPES

For details on additional requirements, please refer to the full text of AB-888

(Food and Agricultural Code, Sections 19020-19023)



All carcasses of animals slaughtered by a licensed MSO and any resulting meat cuts are only for personal use and consumption of the owner(s), owners' family, employees, and other identified individuals and must be identified as "NOT FOR SALE".

MPES is currently working on updating its Meat Inspection regulations to implement AB 888 and provide regulatory oversight to protect California's food safety, animal welfare, and environmental impact; while expanding direct market opportunities for Livestock Producers. The requirements and standards are significant to enhance animal traceability and transparency; to make certain that the source of the custom carcass and any resulting meat cuts can easily be identified if needed and to strengthen consumer trust as well as safety, while expanding markets by allowing MSOs to conduct slaughter services for multiple customers on the Livestock Producers' premises.

In addition to the regulatory actions, the MPES team is also continuously implementing and revising outreach materials to guide stakeholders and the rest of the industry who are interested in utilizing this new law. MPES is certain that by strengthening and modernizing its regulation, the branch will continue to accomplish its ongoing mission: to protect and assure the safety of the California's public health and food supply chain.

MSO Guidelines and Flowchart are available on the MPES website and at the links below:

[MSO Guidelines](#)

[MSO Flowcharts](#)



For additional information, contact
Meat, Poultry and Egg Safety Branch (MPES)

CDFA.MPES_feedback@cdfa.ca.gov

(916) 900-5004

California Animal Response Staff Attend FBI/USDA Joint Training

By: Robert Bonifacio, DVM, USDAAPHIS Veterinary Medical Officer

On March 7-8, members from USDA APHIS Veterinary Services (VS), the California Department of Food and Agriculture (CDFA), the FBI, local law enforcement, and the California Official State Agent (OSA) for the National Poultry Improvement Plan, attended the Animal Plant Health Joint Criminal Epidemiological Investigations Course. Dr. Leslie Cole, Emergency Coordinator for Oklahoma/Arkansas, represented VS and delivered several excellent presentations. One scenario included animal health officials and FBI fusion cells sharing information to piece clues together to determine if a disease outbreak is associated with a crime. Another scenario involved break-out groups that would plan an intentional introduction of a foreign animal disease (red teams) and groups that would plan how to prevent introduction and establish methods for early detection (blue teams). One of the key take-home messages was for animal health personnel to consider that a disease investigation may also be associated with a crime. Many new relationships were established between agriculture and law enforcement for future coordination.



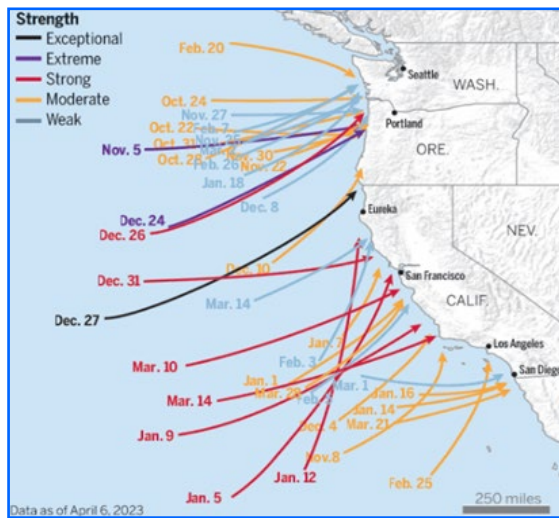
Front Row Left to Right: Dr. Rachael Fisher (VS), Dr. Leslie Cole (VS), Dr. Ann Ikelman (CDFA), Dr. Carla Lytle (CDFA), Tanya Beaucaire (VS), Dr. Stacy Wong (VS), Monica Della Maggiore (NPIP OSA)

Back Row Left to Right: Dr. Bob Bonifacio (VS), Dr. Natalie Ward (CDFA), Mike Content (VS), Dr. Laura Bradley (CDFA), Katie Hatch (CDFA), Felicia Pohl (CDFA), John Montalbano (CDFA)

California's Extremely Wet Winter

By: Sonia Brown, Emergency Preparedness and Response Manager

From late December 2022 to March 2023, California was pummeled by fifteen moderate to strong atmospheric rivers (AR) that brought a deluge of heavy rains and high water levels severely flooding areas statewide. During this period, about 78 trillion gallons of water descended on California according to data from the [National Weather Service](#) (NWS). The last winter that compares with this year's atmospheric rivers was in 1983 per the [National Oceanic and Atmospheric Administration](#).



Source: [Center for Western Weather and Water Extremes](#)

other volunteers rallied with vehicles and equipment to assist dairy farmers who had to rapidly evacuate cattle to nearby facilities and yet others made the difficult decision to evacuate their cattle to out-of-state facilities. It is an onerous and delicate process to move thousands of cattle in a safe manner without causing stress to the animals. About 75,000 dairy cattle statewide had to be evacuated to safer ground due to flooding according to the Western United Dairies, and as of April 5, many facilities remain flooded.

The California Department of Food and Agriculture (CDFA) quickly mobilized to deploy personnel and activate the CDFA department operations center (DOC) to support the agricultural community in flood impacted counties and the state operations center (SOC) that activated at a Level 1 (highest level) in a 24-hour capacity to coordinate the state emergency response. The California (CA) Emergency Support Function (ESF) 11 Coordinator and California Animal Response Emergency System (CARES) supported the SOC state response, advance planning to evaluate threats and potential impacts to the agricultural community, and the current state and federal Food and Agricultural Task Force focused on the Tulare Lake Basin for which Governor Gavin Newsom issued an [executive order](#) on the 31st of March. CDFA also provided field support from district office personnel who provide daily services to producers, merchants and the public. CDFA CA-ESF 11, CARES, select CDFA programs, and district offices' personnel joined the state's all-of-government emergency response including:

- Check the National Weather Service (NWS) [2023 Spring Flood Outlook](#) for expected conditions for April through June.
- You can locate your area in the [NWS interactive map](#), which highlights areas of minor to moderate flood risk across California related to recent atmospheric rivers.

According to the Department of Water Resources (DWR) [California Data Exchange Center](#) (CEDEC) as of April 01, the statewide snowpack's snow water equivalent (measures the amount of water that would result from melting the snowpack) is 61.1 inches, or 237% of average making it the largest snowpack for the Tulare Lake Hydrologic region since the official record-keeping began in the 1950's, which in 1952 showed a similar average of 237% of average. Flooding and landslide hazards could continue through the spring and summer as historic snowpack volumes melt.

Flooding in the central valley affected cropland, farmland and feed supplies. Amazingly, farmers responded by using their own equipment to shore up breached levees, clear debris from swollen rivers and channels, repair irrigation ditches and canals, and build berms in a desperate effort to save their farms and ranches, crops and livestock. Neighboring farms and

(Continued on page 16)

- CDFA DOC coordinated CDFA activities, conducted daily briefings, and prepared situation reports;
- District personnel served in the field to help evaluate animal evacuation needs and provide other services;
- Eleven fairgrounds opened for shelter or staging needs;
- CA-ESF 11 supported the SOC's advance planning and Food and Agriculture Task Force;

- CARES program, at the local level, coordinated resources where needed, made direct contact with affected dairy farms and ranches to assess unmet needs, provided and gathered intelligence about the incident, coordinated with affected county agricultural commissioners, environmental health, and trade organizations as well as amplifying local government messaging;



Flooding in the central valley.

- CARES program, at the state level, assisted and supported the CA-ESF 11 Coordinator and SOC emergency response by participating in required meetings and briefing on CDFA and local government activities, and coordinated and collaborated with other state agencies and federal government, and volunteers in the field;
- CARES produced flood and evacuation resources and gathered products from reliable sources to include in the [CARES website](#), which were advertised through social media platforms; and
- Office of Public Affairs prepared a comprehensive [Flood Resources Recovery](#) landing page.

Prepare for a flood:

- Know Your Hazards: Visit [MyHazards](#) to learn about risks (earthquake, flood, fire, and tsunami) in your area.
- Know Your Flood Risk: Search your zip code in the [FEMA Flood Map Service Center](#) to determine your flood risk.
- Make a Family Plan: Talk with members of your family so everyone knows what to do in case of a flood or other hazard. Ensure to include your household pets.
- Make a Farm Plan: The [National Dairy Farm Program](#) template can get you started to determine the process for evacuating your livestock or shelter-in-place.
- [Sign Up for County Emergency Alerts](#) in your area.

Resiliency in the Tulare District

By: Maureen Lee-Dutra, DVM, MPVM, Tulare District Veterinarian-in Charge

At dawn on March 16th, Tulare District's Veterinarian-in-Charge Dr. Maureen Lee-Dutra received a startling text message informing her that the Tulare District Office, located at the southwest corner of the California Animal Health and Food Safety Services (CAHFS) lab, was surrounded by flood waters. While several dairies a few miles away had flooded over the previous few days, there was no advance warning that the water would reach the office's doorstep. Nonetheless, with the Tule River breaching levees and riverbanks overnight, the water flooded the fields to the east and started creeping towards Highway 99 just west of the CAHFS lab. While the water level did not reach the main floor of the building, it filled the below-ground levels where all the building's electrical components are housed.

With no electricity in the office (and several work vehicles partially underwater), Tulare staff had to quickly adapt to a complete teleworking arrangement. As the staff had already begun movement in this direction over the past two years during the pandemic, it was relatively straightforward to complete that process. Tulare District is thus able to continue our duties with only minor interruption. Tulare District staff are directly servicing the local veterinary clinics with pick-ups and supply deliveries, and more remote clinics can continue to interact via mail (and phone). Tulare District does ask for patience as we organize deliveries in addition to our regular duties; as much advance notice of supply orders as possible is greatly appreciated as in-person pickup from the office is not currently available.

We look forward to getting back into our home office whenever that time arrives. It seems not very long ago that we moved into our current building from the old mobile trailer at the back of the UC Davis Veterinary Medicine Teaching and Research Center (VMTRC) complex, yet it will be five years this spring. We also look forward to getting back into the office with our CAHFS colleagues who are busily temporarily re-establishing services at their previous home base at the VMTRC.

Thank you to the VMTRC and Cooperative Extension for welcoming us all during this difficult time, and to those local veterinarians who also reached out to ask if they could be of any help.

Got Bird Photos?

TAKE PHOTOS*
OF YOUR
BIRDS AND
SUBMIT THEM
TO BE
CONSIDERED
FOR THE 2024
CDFA AVIAN
HEALTH
CALENDAR



*IMPORTANT PHOTO GUIDELINES:
[HTTP://WWW.CDFA.CA.GOV/AHFS/ANIMAL_HEALTH/PDFS/PHOTO-DISCLAIMER.PDF](http://www.cdfa.ca.gov/AHFS/ANIMAL_HEALTH/PDFS/PHOTO-DISCLAIMER.PDF)

SUBMIT BY: MAY 31, 2023

AHB Staff Biographies



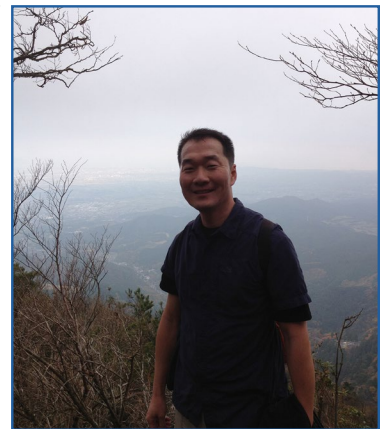
Dr. Danny Dickason grew up in Southern California, Washington state, and Massachusetts among as many as 16 pets at a time, comprised of many different species. As a young child, Danny practiced animal husbandry with his family pets and rode horses before realizing he was better suited to (and likely safer on) skateboards, bicycles, and motorcycles. His upbringing around animals and an interest in mechanics and systems-based thinking led



him to pursue an education in Animal Science at UC Davis followed by a veterinary degree from Tufts University. After earning his degree, Danny escaped the frosty conditions of New England to practice small animal medicine in the San Francisco Bay Area for 12 years. During that time, he developed a keen interest in ultrasound and surgery, but was eventually drawn back to Tufts to pursue his master's degree in Conservation Medicine.

There, he studied larger systems-based approaches to animal health including ecology, disease surveillance, biostatistics, stakeholder engagement, and positive outcomes through scientifically-informed regulation. As of February 2023, Danny is applying these past experiences and education to his new position in the Wildlife Interface Program within the Animal Health Branch! Outside of his professional pursuits, Danny can be found at your local skatepark, in the garage or on the road with his motorcycles, caring for his sassy cat Charlene, or in a music venue or natural space.

Dr. Brian Kim grew up caring for and surrounded by all different types of pets and livestock, reading James Herriot books, and watching Jacques Cousteau television series with an aspiration to become an animal advocate one day. His initial journey took him to the University of California at San Diego and the Scripps Institution of Oceanography to navigate the local waters to collect sharks to study their heart function and to, possibly, pursue a career in Marine Biology. This path took a sudden turn when he was given the chance to complete a veterinary degree at the University of California at Davis. During the process, Brian was selected for the Early Commissioning Program and commissioned a Second Lieutenant in the U.S. Army. He was later awarded a military Health Professions Scholarship, which led him to a 25+ year career culminating as the Deputy Chief of the U.S. Army Veterinary Corps at the rank of Colonel. He was also very fortunate to be given the opportunities to earn additional post-graduate degrees in Preventive Veterinary



Medicine, Food Science (emphasis in Food Microbiology), and Strategic Studies during his military tenure. Brian has been a Diplomate of the American College of Veterinary Preventive Medicine (DACPVM) since the year 2006 and also holds the Army Surgeon General's prestigious "A" Proficiency Designator for Veterinary Preventive Medicine.

Dr. Kim's assignments took him across the States and the globe to serve in various tactical, operational, and strategic leadership positions with the Department of Defense. After spending the military to civilian transitional year in corporate practice as the Area Chief of Staff for clinical medicine, Brian is truly excited to be a part of the CDFA/AFHSS/AHB Team to "serve the citizens of the State and consumers of California agricultural products."

Aside from his current CDFA duties, you will find Brian spending his free time with his family, to include his Wheaten Terrier, hiking across various California hills and mountains.

Contact Information



CALIFORNIA DEPARTMENT OF
FOOD & AGRICULTURE

**State Veterinarian
and
Director, Animal Health and
Food Safety Services**
Dr. Annette Jones
(916) 900-5000

Animal Health Branch
Dr. Amanda Murray, Acting Branch Chief
Headquarters: (916) 900-5002
Fax: (916) 900-5333
Permit Line: (916) 900-5052

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

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. Maryaam Goshgarian
3800 Cornucopia Way, Suite F
Modesto, California 95358
(209) 491-9350

Tulare
Dr. Maureen Lee-Dutra
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

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

Website: www.cdfa.ca.gov/ahfss/Animal_Health/Index.html
Email: ahbfeedback@cdfa.ca.gov