



NEWSLETTER

Volume 62 / January 2024



Message From the Chief

By: Mandy Murray, DVM, MPVM, PhD, AHB Branch Chief



Dr. Murray with Speedy Jack, the family bearded dragon.

Happy New Year!

As we reflect on 2023, much of the focus for staff in the Animal Health Branch (AHB) was responding to two large outbreaks – Vesicular Stomatitis affecting horses and cattle, and Highly Pathogenic Avian Influenza affecting commercial and backyard poultry operations as well as wild birds. In addition to these large-scale responses, staff was also busy responding to detections of Equine Infectious Anemia, Equine Herpes Virus/Equine Herpes Myeloencephalitis; conducting surveillance for diseases of concern such as Foot and Mouth Disease and Tuberculosis; and responding to a variety of calls and inquiries about sick animals. This year also saw us work closely with the Milk, Dairy, and Food Safety Branch to keep milk safe during a case of botulism at a dairy and with the Meat, Poultry, and Egg Safety Branch on Carcass management, such as rendering and composting.

During this past year, there have been some changes in the AHB. Due to the flooding in the Spring of 2023, the Tulare office has had to be closed and the Tulare staff deftly pivoted to working remotely to continue operations without missing a step. The Ontario office has been long anticipating a new office and that move will be happening at the end of January. We have also had staff turnover and have several vacancies throughout the state – be sure to read our update in the following newsletter!

As we look to 2024, I continue to be inspired by all the AHB staff who work with dedication and passion to serve and protect California's livestock and poultry populations and protect our food supply. Working with our partners at USDA and throughout the various animal agriculture industries in California, I am confident we will continue to face whatever may come our way.

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Resurgence of Highly Pathogenic Avian Influenza in California and the United States

By: Felicia Pohl, Research Scientist, Avian Program

November and December 2023 brought a resurgence of Highly Pathogenic Avian Influenza (HPAI) across the United States. As of January 3, 2024, over the last 30 days, there have been 73 confirmed domestic flocks with HPAI; 44 of these being commercial flocks and 29 being backyard flocks with a total of 11.43 million birds being affected (*Image 1*). In wild birds over the last month, over 377 cases of HPAI have been detected.

In California specifically, over the last 30 days, there have been 16 affected commercial flocks and two backyard flocks with over 4.3 million birds being affected in the following counties – Lassen, Marin, Merced, San Joaquin, Sonoma, and Stanislaus. The last three flocks affected were confirmed on December 28, 2023, in Marin and Sonoma Counties. In addition, there were approximately 24 detections of HPAI in wild birds in the following California counties – Butte, Glenn, Inyo, Kern, Marin, Sacramento, San Mateo, Santa Clara, and Yolo counties (*Image 2*).

Since the beginning of the outbreak in February 2022, there have been 1,059 cases of HPAI documented in domestic flocks in 47 states (with approximately 79.71 million birds affected). The last three detected domestic cases were documented in South Dakota, Texas, and California at the end of December 2023. Over the span of the outbreak, approximately 8,626 wild bird cases total have been documented with the most recent cases being in Iowa and Illinois detected at the end of December (*Image 3*). It is important to note that HPAI has been widespread and may also be present, especially in

wild waterfowl, in other counties that are not listed (dependent on which areas are testing). For information on current HPAI control areas (affected zones that may require permits for the movement of poultry/poultry products), please refer to the [California Quarantine Permit infographic](#).

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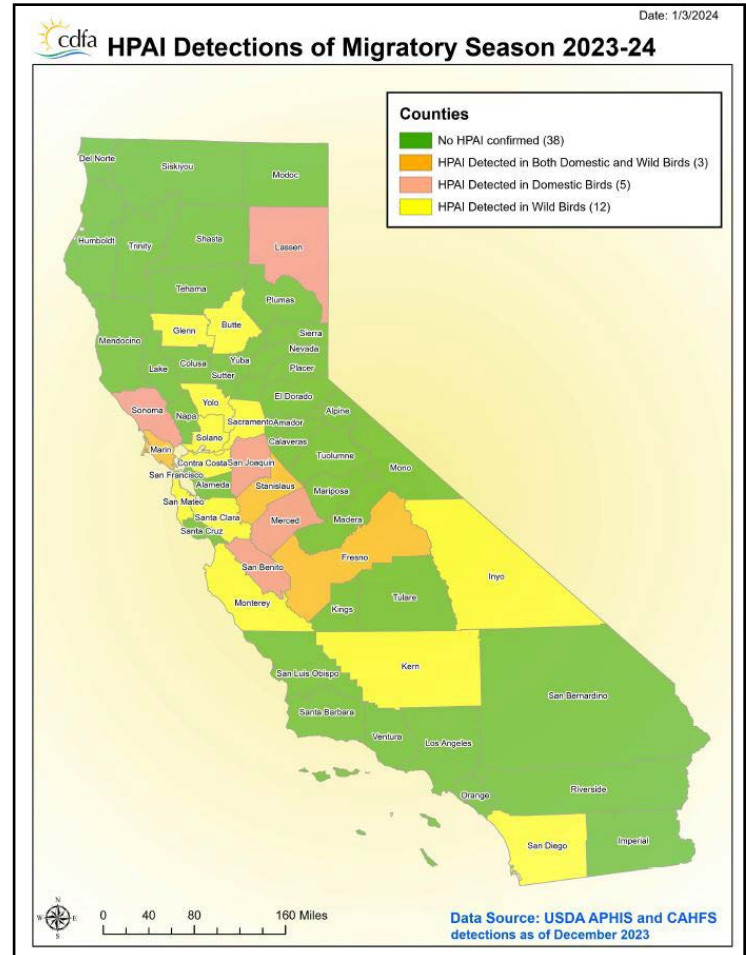


Image 2

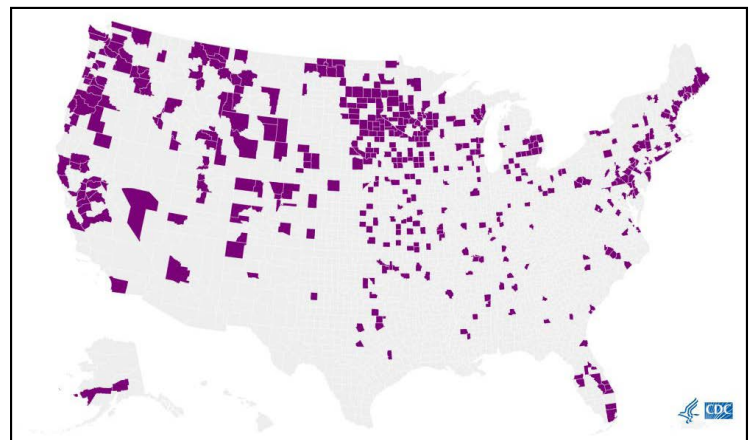


Image 3: [H5N1 Bird Flu Detections across the United States \(Backyard and Commercial\)](#)

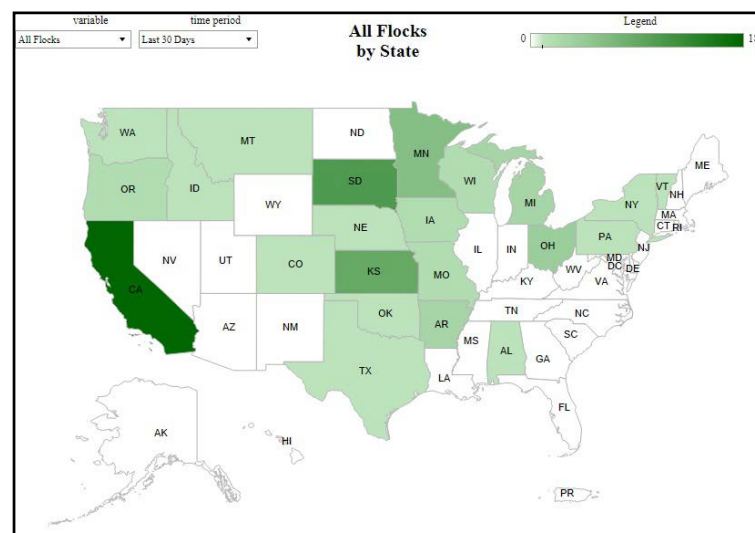


Image 1: [USDA APHIS | 2022-2024 Confirmations of Highly Pathogenic Avian Influenza in Commercial and Backyard Flocks](#)

For more information regarding the HPAI outbreak and an up-to-date list of confirmed cases in the United States, please visit:

- [USDA APHIS | 2022-23 Detections of Highly Pathogenic Avian Influenza](#)
- [CDFW News | Avian Influenza](#)
- [CDC News | H5N1 Bird Flu Detections across the United States \(Backyard and Commercial\)](#)

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 during this time for poultry owners to enhance their biosecurity measures to prevent disease and protect their birds.

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's [Wildlife Mortality Reporting webpage](#). If you have questions about wildlife rehabilitation, please contact the [California Department of Fish and Wildlife](#) directly.

For more information, updates, and tips on protecting your flock, please visit our [CDFA Avian Influenza webpage](#).

California Vesicular Stomatitis Update

By: Josh Kloeppel, DVM

California continues to respond to the outbreak of Vesicular Stomatitis Virus (VSV) that began with the first detection in May 2023. Since the first positive detection on May 17, 2023, as of January 8, 2024, there have been 319 VSV-affected premises in three states (California, Nevada, and Texas) with 316 of those premises being in California. Of these 316 premises, 309 have had equine-only affected animals, while seven premises have had affected bovine, and one had affected rhinoceroses. Throughout this incident the classification of cases has been as follows: premises that have laboratory diagnostic confirmation of VSV are categorized as confirmed positive premises. Once a county is confirmed as VSV-positive, new equine premises presenting with clinical signs of VSV in that county are not required to be tested for confirmation of the disease, but the premises will be quarantined and classified as a suspect premises upon reporting by the practicing accredited

veterinarian. Quarantines are issued based on confirmed lab results and then subsequent reports of clinically symptomatic animals in known positive counties (suspect cases). Confirmed positive and suspect premises are quarantined for at least 14 days from the onset of lesions in the last affected animal on the premises.

We are currently still seeing new cases of VSV in California and have two active quarantines in Sacramento County. As we look forward to the eventual release of all quarantines, the question always asked is "What's next?" In order for California to be designated "VSV-Free" we have to have no active quarantines, and then following the release of the final quarantine, we will have to go 30 days without any new cases of VSV confirmed as positive. Once that has been achieved, California will then be designated "VSV-Free" and will return to normal animal movement regulations for both import



and export. Additionally, other states and countries have VSV requirements in place that must be met before animals are allowed to be transported into their state/country from California. Some requirements are more strict than others and will not allow any California livestock entry due to VSV. In addition to animal welfare concerns, these restrictions serve as additional motivation to practice good vector control in an effort to resolve the VSV incident as quickly as possible.

As a reminder on affected species, we continue to identify the vast majority of cases in equine species with a small fraction of the reported cases being in other livestock species. It is important to note that all livestock species are considered susceptible; however, any NON-equine livestock species being reported for VSV rule-out must be investigated by CDFA Veterinarians. Situation reports continue to be distributed to various equine and bovine industry partners and veterinarians. If you are not receiving these reports and would like to, please contact your local CDFA Animal Health Branch District office and

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request to be on the distribution list.

As a final note, the MOST IMPORTANT advice CDFA wants to give to ALL livestock owners and producers is that vector (insects, flies, gnats) control is the absolute most important aspect of Vesicular Stomatitis control and ultimately the key to ending the current outbreak.

Please check the CDFA website for the most up-to-date situation reports as well as useful outreach material that includes animal events biosecurity, vector control, and other information pertaining to VSV and the ongoing outbreak in California.

On-Farm Composting for HPAI Pathogen Elimination

By: Meghan Mott, DVM

Composting poultry carcasses is an essential and responsible method for managing Avian Influenza outbreaks. Highly Pathogenic Avian Influenza, commonly known as bird flu, poses a significant threat to poultry populations and can have severe economic and health implications. Proper disposal of infected carcasses is crucial to prevent the spread of the disease. Composting has emerged as an environmentally friendly and effective technique to handle poultry



Outdoor compost

carcasses while minimizing the risk of disease transmission.

The process of composting involves the decomposition of organic materials by microorganisms under controlled conditions. When applied to poultry carcasses, composting creates an environment that accelerates decomposition, effectively destroying pathogens, including the Avian Influenza virus. The high temperatures reached during composting, typically between 130°F to 160°F (54°C to 71°C), are sufficient to kill pathogens, rendering the final compost safe for reuse in agricultural settings.

Poultry carcass composting offers

several advantages over other disposal methods, such as rendering, burial, landfill, or incineration. It is cost-effective, environmentally sustainable, and significantly reduces the volume of waste. Composting also produces nutrient-rich organic matter, which can be utilized as a valuable soil amendment, enhancing soil fertility and structure. This dual benefit of disease control and resource production makes composting an attractive solution for handling Avian Influenza outbreaks in the poultry industry.

Proper management and monitoring are essential during the composting process to ensure its effectiveness in eliminating pathogens. Factors such as carbon-to-nitrogen ratio, moisture levels, aeration, and temperature must be carefully regulated to create optimal conditions for microbial activity.

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Indoor compost



A Compost Thermometer reading >160°F

Adequate turning of the compost pile promotes uniform decomposition and helps maintain the required temperature for pathogen destruction. Within just 28 days, properly managed HPAI compost achieves effective virus elimination.

In conclusion, poultry carcass composting stands as a reliable and sustainable approach to managing Avian Influenza outbreaks. Its ability to efficiently eliminate pathogens while producing beneficial compost underscores its significance in mitigating the impact of such diseases on the poultry industry. Governments and agricultural authorities play a pivotal role in promoting and regulating poultry carcass composting practices during disease outbreaks. Providing guidelines, training, and resources to farmers and stakeholders can encourage the adoption of this method while ensuring compliance with safety and environmental standards. Through proper implementation and support, composting can serve as a crucial tool in disease control strategies, safeguarding both animal health and environmental well-being.



Compost is a valuable soil amendment.

Cross-Species Viral Transmission of Avian Influenza

By: Linda Flores, DVM and Laura Bradley, DVM, CAHEN

Avian influenza can infect all bird species, and the most recent highly pathogenic H5N1 strain has also been documented to affect wild mammals and domestic pets. As of December 2023, there have been detections of highly pathogenic avian influenza (HPAI) in animals such as fishers, mountain lions, bobcats, and raccoons in California. Across the US, red foxes are the most commonly affected species followed by skunks. Many seals in Washington and

Maine and, most recently, a polar bear in Alaska and an Albert's squirrel in Arizona were also found to be infected. Ingestion of birds infected with HPAI was presumed the most likely source of infection in wild mammals. These wildlife cases can be found on the [USDA Detections of HPAI in Mammals website](#).

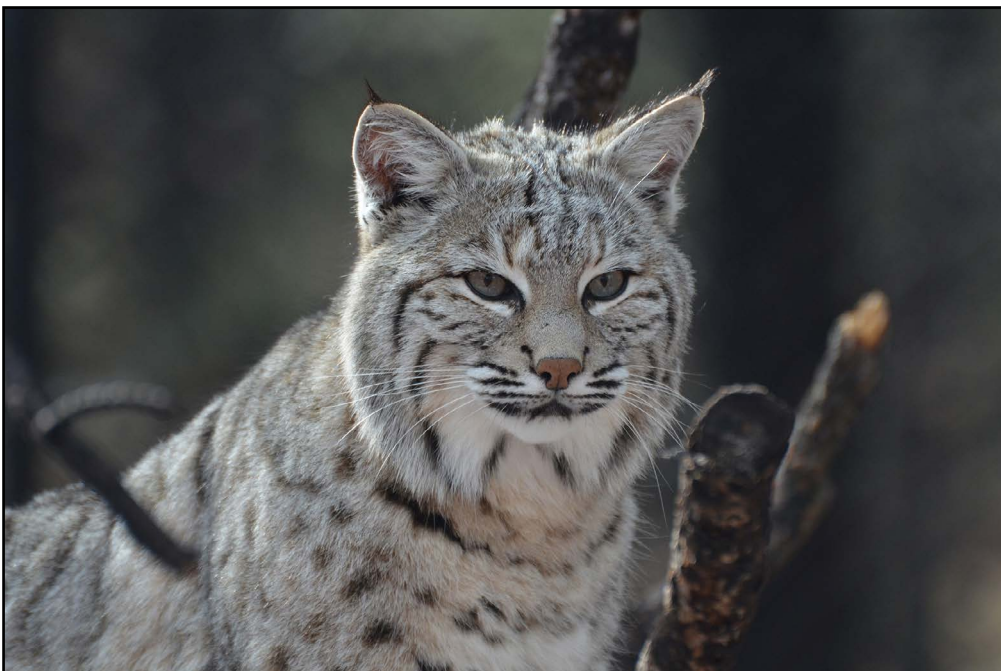
According to a study in 2022, infected wildlife mammals can either present dead or with neurological signs

similar to infected birds of prey. Clinical signs include seizures, vocalization, circling, blindness, torticollis (twisting of the head and neck), nystagmus (abnormal movement of the eyes), and grimace. Common lesions of the lungs and brain were observed in 58 animals. The lung findings consisted of congestion, swelling, failure to collapse, hemorrhage, and excessive fluid in the lungs. The brain lesions consisted of hemorrhage and congestion.

Apart from wild animals, domestic animals around the world have been infected by avian influenza. In June, avian influenza H5N1 infection was confirmed in 25 cats in Poland. After the veterinarians reached out to the cats' owners, it was suspected that HPAI-contaminated chicken meat was the possible route of transmission. In July, two cat shelters in Seoul, South Korea had an increase in deaths with no clinical signs. Upon further investigation, it was determined that five cats from one shelter and four cats from the second shelter were confirmed to have H5N1.

With HPAI H5N1 showing effects in domestic animal veterinary practices,

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veterinarians presented with pets demonstrating respiratory or neurological signs may want to consider asking pet owners about potential exposure to domestic poultry with known HPAI or with wild waterfowl in any location. In addition, pet owners should be encouraged to keep pets away from interacting with domestic poultry (e.g., chickens) and wild waterfowl (e.g., ducks and geese) in the parks.

The California Department of Food and Agriculture (CDFA) and the United States Department of Agriculture (USDA) are continuing to work on controlling and preventing the current outbreak of HPAI from spreading in our domestic animals. For updates on the spread of HPAI and wild birds across the US visit the [USDA Detections of HPAI in Wild Birds website](#). For updates on HPAI detections in domestic birds in California, visit the [CDFA Avian Influenza Updates website](#). To report any unusual illnesses or deaths in domestic poultry/birds, call the Sick Bird Hotline (866) 922-2473. To report unusual deaths in wildlife, contact the California Department of Fish and Wildlife (CDFW). To report any suspected pets/domestic animals with HPAI, contact your local county public health.

California Wildlife Damage Management Project Update

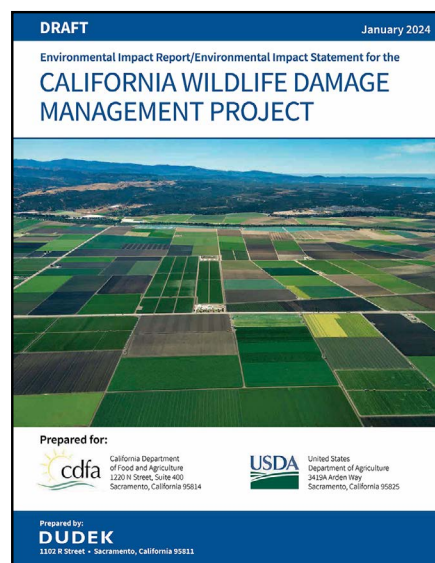
By: Danny Dickason, DVM, MCM

Producing high-quality plant and animal products that nourish our bodies is no easy task. California's producers literally invest blood, sweat, and tears into doing so. Although we all love seeing wildlife when we are enjoying nature, that same wildlife can become quite a nuisance when California producers are working diligently to efficiently produce the items we expect to find at reasonable prices on grocery store shelves. A flock of European starlings in a field can mean the difference between a healthy grain harvest and a financial catastrophe for the farmer. A coyote gaining access to a poultry operation can cause thousands of dollars in losses in addition to immeasurable amounts of animal suffering. Invasive species such as nutria can quickly establish populations along irrigation canals, disrupting these structures and farmers' regular access to water while also decimating the delicious fields of greens those producers have nurtured into existence. From a financial perspective, confirmed direct losses from predation on California livestock alone were estimated at \$5.5 million between 2010 and 2019. When producers encounter situations like this, it is important for them to know that CDFA and Wildlife Services California (WS-CA) are here to help with what is termed "Wildlife Damage Management" (WDM). WDM could include technical advice on ways to protect the plants or animals under threat, such as exclusionary methods

or scare devices, or could involve on-site operational assistance to mitigate the wildlife damages that are occurring.

In an effort to improve the efficacy of these activities and fulfill its mandate to "promote and protect the agricultural industry of the state", CDFA is currently working to standardize California's approach to WDM by analyzing the methods utilized by each of the state's 58 counties. CDFA has been working alongside WS-CA to draft an Environmental Impact Report (EIR) which will

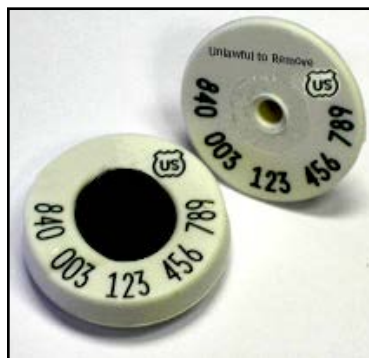
provide a comprehensive analysis of public, stakeholder, and environmental concerns about WDM activities. This report has been years in the making, but we are happy to report that a draft of the document is currently available at [California Wildlife Damage Management website](#). Information on obtaining a flash drive containing the documents as well as a public comment session scheduled for February 8, 2024 can also be found on that website. The report has required hundreds of hours of hard work to ensure we can provide producers with the best methods available to help them succeed in enacting WDM while having minimal impacts on their surroundings.



Animal Disease Traceability Rule Update

By: Kavishti Kokaram, DVM, DACVPM, Supervising Veterinarian

The USDA's Animal Disease Traceability (ADT) framework was established to improve the ability to trace animals from slaughter back to their farm of origin or to the premises where the animals were officially identified (if not tagged at the farm of origin). The framework also allows tracking of interstate movements throughout the animals' lifetime. This



ability to trace the movement of animals through interstate and intrastate channels is an essential part of any disease outbreak response as well as a means for assuring trade partners that we are able to not only locate infected or exposed

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animals but also contain a potential disease outbreak quickly and accurately.

In 2023, the USDA proposed a series of changes to existing federal ADT regulations that would require that ear tags applied to cattle and bison be “visually and electronically readable in order to be recognized for use as official [identification (ID)] for interstate movement.” Additional clarifications to existing definitions were proposed, including the definition of dairy cattle and approved tagging sites. This updated rule would result in electronic IDs (EIDs), such as Animal Information Number (AIN) tags beginning with an “840” prefix, being the only approved form of ID to be considered official. This new rule does allow for additional types of technology to be developed to identify cattle and bison, however such technology does not currently exist. The deadline for submission of public comments ended in April 2023, and the USDA has completed its review and responses to the received comments. The proposed final ADT rule is currently being reviewed by the Office of Inspector General.



The estimated release of the final ADT rule is slated for the first quarter of 2024 with an implementation date set six months thereafter for adoption of the new rule.

[Federal Register: Use of Electronic Identification Eartags as Official Identification in Cattle and Bison](#)

Porcine Disease of Emerging Concern

By: Kavishti Kokaram, DVM, DACVPM, Supervising Veterinarian

With the advancement of diagnostic testing, a potential swine pathogen has become more commonly identified as a contributor to piglet diarrhea. Porcine Sapovirus (PSaV) is a Calicivirus in the same family as human Noroviruses that has been detected in pigs with and without clinical diarrhea worldwide. PSaV has been identified either as a co-infection with other agents such as Rotavirus or coccidia and also as the sole cause of diarrhea in some outbreaks. While historically, PSaV has been identified in post-weaning pigs, it has been increasingly diagnosed in piglets 6-10 days of age. Diarrhea can be mild to severe in clinically affected piglets and is usually self-limiting, although may result in productivity and efficiency setbacks with weaning weight losses of 1–2lbs on average being seen in some outbreaks.

While information on PSaV is scant, the mode of transmission between piglets has been suggested to be fecal-oral. As the virus has been shown to persist in the environment and be quite resistant to high temperatures, acid environments, and a wide range of climates, on-farm biosecurity and isolation of sick piglets has been shown to be essential PSaV prevention steps. Currently, while there are no commercial vaccines for PSaV, recent advancements in vaccine technologies have seen the development of vaccine platforms that present viable options for farm-specific vaccines in herds that are significantly affected.

While PSaV has been identified in both clinical and apparently healthy piglets, advancements in diagnostics have demonstrated an increasing role of PSaV in piglet diarrhea in both co-infections as well as pure culture and ought to be considered in on-farm assessments and health programs.



Seasonal Movement Permits for Cattle and Horses – Application Period Open for 2024

By: Kristen Cox, Environmental Scientist

Springtime coincides with the beginning of pasture movements out of state for many California cattle ranchers. If you, or your clients (if you are a veterinarian), own a beef breeding herd that commutes between California and either Nevada, Oregon, or Idaho throughout the year to graze, your herd may be eligible to move on a Pasture-to-Pasture (P2P) Permit. These permits may exempt your cattle from traditional interstate movement and health requirements, such as Certificates of Veterinary Inspection (CVIs), entry permits, and/or testing. Brucellosis vaccination may still be required for female beef cattle depending on the destination/participating state despite California recently changing its vaccination requirements.

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Additionally, the Animal Health Branch (AHB) offers a Working Horse Permit (WHP) to horse owners for moving their horses across state lines between California and Nevada or Idaho strictly to assist with livestock husbandry or other ranch-related activities. Many times, these permits are used in conjunction with P2P Permits. If approved, a WHP exempts horses from needing CVIs over the course of the calendar year in which the permit is valid as long as they have a current negative Equine Infectious Anemia (EIA) test (or Coggins test).

For more information about P2P Permits or WHPs, please contact the Permit Desk at (916) 900-5052 or evet@cdfa.ca.gov. If interested in applying, both the WHP and P2P Permit applications are available for download on [AHB's Licensing website](#). The application period for 2024 WHPs opened in December 2023. P2P Permits and WHPs should be submitted at least 30 days prior to the anticipated movement date.

Are You Ready For an Outbreak?

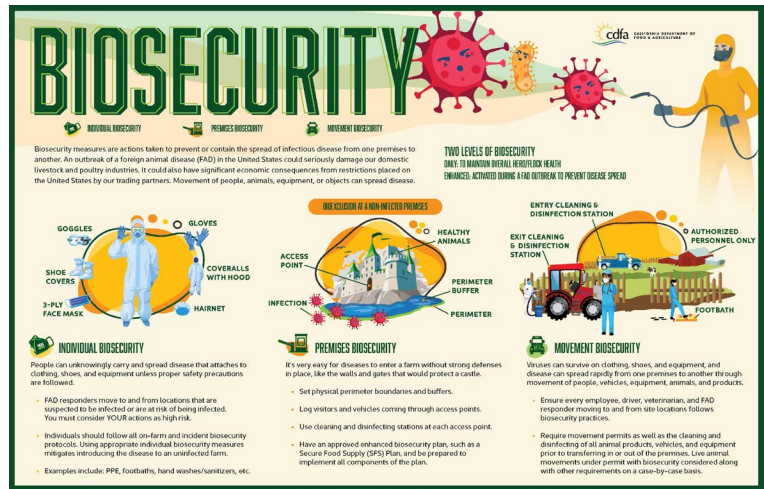
By: Mandy Murray, DVM, MPVM, PhD, AHB Branch Chief

Do you know what will happen if a regulatory disease is detected in one of your animals or on your premises? The response actions taken by CDFA and USDA staff will vary depending on the species of animal(s) affected and type of production (i.e., commercial vs backyard), but there are some common activities to all disease responses. The staff at CDFA have created a series of infographics and videos to explain what these actions are. Visit our [Preparedness and Response website](#) to find out more. Click on the "Preparedness Tools" at the bottom of the page to find the infographics and videos.

Are you prepared?

There are many things that animal owners and producers can do to prevent disease spread. Resources such as those listed below can also be found on our website:

- The [Secure Food Supply Program webpage](#) has a variety of enhanced biosecurity templates for different poultry production types, as well as one for feed mills. There is also information on how to get a movement permit during an outbreak.
- The [Equine Health webpage](#) has a variety of resources for biosecurity at equine events.
- CDFA has infographics on:
 - Cleaning and Disinfection basics and a list of disinfectants that can be used to inactivate Avian Influenza viruses



- What to expect if your premises falls into a regulatory zone during HPAI
- The indemnity, depopulation, and disposal process during HPAI
- What you need to know about restocking your poultry premises after HPAI
- All of these (and more as they are created) can be found on our [Preparedness and Response website](#).

Are you up to date on the outbreak status?

During an outbreak, CDFA updates respective web pages as conditions evolve. Information on the current outbreaks can be found on the following pages:

- [HPAI webpage](#)
- [VS webpage](#)

As always, if your animals are showing signs of illness, work with your veterinarian and/or call your local CDFA district office or Sick Bird Hotline if appropriate to report sick animals.

Foreign Animal Disease Investigations September 16 – December 15, 2023

By: Alireza Javidmehr, DVM, MPVM, Ph.D.,
Emergency Preparedness and Response Section

It is essential to be aware of foreign animal diseases (FADs) and their potential impact on the food supply chain and international trade. Even though these diseases have either been eradicated or never occurred in the United States, a widespread outbreak could have severe consequences. This includes posing a public health risk if they can be transmitted to humans. Therefore, detecting them early and taking immediate action to control and eradicate FADs is crucial. California is investing significant resources to protect the livestock industry against FAD outbreaks. You can learn about the critical activities when a FAD is detected in the state by viewing 13 infographics and three short video clips on the [CDFA Preparedness and Response web page](#).

Between September 16 and December 15, 2023, FAD diagnosticians carried out investigations on a total of 89 FAD suspicious cases (Table 1). Out of the 89 investigations conducted, almost 86 percent were to rule out Foot and Mouth Disease (FMD) in pigs being shipped to slaughterhouses. The lesions observed in these cases were found to be caused by Senecavirus A (SVA). Although SVA is an endemic disease in the US, it triggers an investigation for FAD due to the similarity of lesions to FMD. It is essential to treat any animal diseases presenting similar signs to an FAD as such until an FAD can be ruled out.

All Emergency conditions listed in the [California reportable animal disease list](#) must be reported to the local animal health authorities within 24 hours. Contact information for the AHB district offices is listed on the last page of this newsletter and on the reportable disease list.

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

AHB Districts	Disease	Species	Sample Type	Number of Investigations	Destination Lab*
Modesto	Foot and Mouth Disease (FMD), Senecavirus A (SVA)	Porcine	Swab	68	CAHFS-Davis
	FMD, Vesicular Stomatitis Virus (VSV)	Bovine	Swab	2	NVSL, CAHFS-Davis
Ontario	FMD, VSV, Orf	Caprine	Swab	1	NVSL, CAHFS-Davis
Redding	Brucellosis	Caprine	Blood, Feces	1	NVSL
	FMD, VSV	Ovine	Blood, Swab	1	NVSL
Tulare	FMD, SVA	Porcine	Swab	9	NVSL, CAHFS-Davis
	FMD, VSV	Bovine	Swab, Serum	6	NVSL, CAHFS-Davis
	High Mortality	Bovine	Eye fluid, Blood	1	NVSL, CAHFS-Davis

*NVSL: National Veterinary Services Laboratory
CAHFS: California Animal Health and Food Safety Laboratory

Case Report: Equine Infectious Anemia in Southern California – A Routine Test Leads to the Discovery of Multiple Cases

By: Alisha Olmstead, DVM and Josh Kloeppe, DVM, Ontario District

On September 20th, a 4-year-old Quarter Horse gelding in Riverside County tested positive for Equine Infectious Anemia (EIA) at IDEXX laboratories on a Coggins test performed by an accredited veterinarian in preparation for a routine orthopedic surgery. CDFA veterinarians confirmed the positive finding on September 25, 2023, with a regulatory sample submitted to the National Veterinary Services Laboratory (NVSL).

Upon further investigation, it was discovered that the horse had been trailered off its home premises to a secondary location for the initial Coggins test. This secondary premises had 24 other horses present as well as three foals. Due to this trailering and location of sample collection, the address written on the original submission form by the accredited veterinarian was the “location of sample collection”. Once the initial positive result in the 4-year-old gelding was detected, all 24 potentially exposed

horses at the secondary location were tested for EIA and Equine Piroplasmiasis (EP) as well. Two of the horses in this population tested positive for EIA resulting in three horses positive for EIA out of 25 horses total in the investigation. A second round of testing that allowed a complete 60-day incubation period on the same population of horses resulted in an additional EIA positive horse, suggesting this horse had been recently infected. In total, four horses have tested positive for EIA in this case. Had the accredited veterinarian completed the Coggins form with the information of the horse’s home premises rather than the actual location of sample collection, the three additional positive horses may have gone undetected.

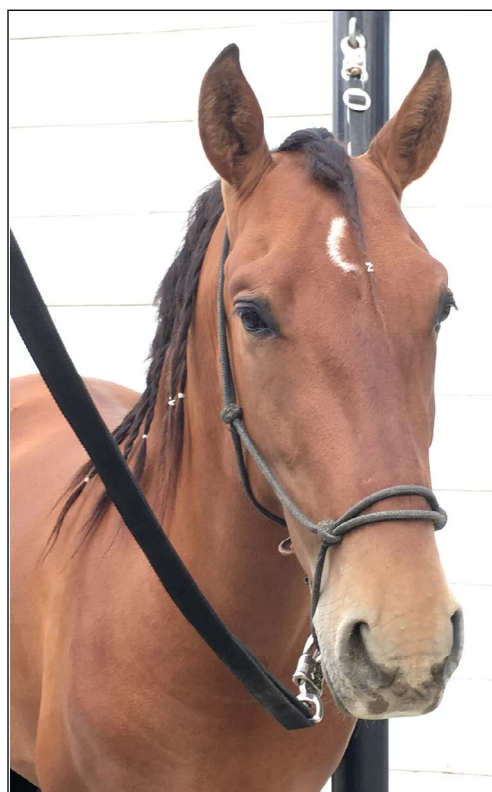
EIA is a bloodborne virus affecting horses with no known treatment. Natural transmission is through deer or horse fly bites, pregnant mares passing the infection to foals in utero or via milk, or through breeding with an infected stallion. Infected horses become lifelong carriers and pose a risk of infection to other horses. Therefore, when a horse is confirmed positive for EIA by a regulatory sample submitted to NVSL, management options are limited to euthanasia or lifetime quarantine with permanent isolation from all other horses.

Unsanctioned horse racing, commonly called “bush track” racing, has been associated with widespread transmission of both EIA and EP (another blood-borne disease affecting horses). The spread of disease at bush tracks is often iatrogenic, meaning that it is not spread by insects, but through medical treatment or examination. The most common methods of disease spread are the reuse of needles, syringes, and tools used for intravenous administration of multi-dose medications; using blood and



plasma products from other countries that have been illegally imported; and direct blood transfusions between horses, also called “blood doping”, which is used to increase performance.

Cases of EP and EIA are often caught when Quarter Horses racing at sanctioned races are tested for the diseases. There is a significant crossover between sanctioned races and “bush track” races for race-trained Quarter Horses. According to Equine Disease Quarterly, between 2008 and 2022, 541 cases of EP and 409 cases of EIA were confirmed in current or former Quarter Horse racehorses. Many of these horses were known to have raced in bush track races and all the cases were found to have used unhygienic practices that spread the disease. Some horses had both EP and EIA infections.



AUS Releases 2023 Annual Report

By: Antimicrobial Use and Stewardship Branch

AUS recently released its [2023 Annual Report](#), which details AUS' work in FY 2022-2023. This fiscal year, AUS produced a number of resources for veterinarians to aid in the successful completion of a veterinary feed directive (VFD), as well as a guide to provide veterinarians with an overview of concepts to consider when using antimicrobial susceptibility test data to assist in clinical decisions. AUS also released livestock producer-focused resources, such as an aid in [fly identification, monitoring, and tracking](#) targeted to cattle but potentially also applicable to other species.



New this year, the Annual Report includes an overview of AUS' achievements since program inception, commemorating the five years since California law brought all medically important antimicrobial drugs under veterinary oversight. AUS continues to be proud of its strong collaborations with academic researchers in the field of livestock antibiotic resistance, leading to several peer-reviewed journal publications, as well as oral and poster presentations, which further build upon current scientific knowledge and inform the community.

Visit the [AUS website](#) for more program updates.

The AHB is Hiring!

By: Mandy Murray, DVM, MPVM, PhD, AHB Branch Chief

Do you want to make a difference for California Agriculture? Come work for CDFA – Animal Health Branch.

The AHB is looking for bright, enthusiastic, committed people with a passion for animals and/or animal agriculture to join our team. We have several vacancies throughout the state including:

- Veterinarians in all four districts and Sacramento including generalists, specialists, and a supervisor position;
- Livestock Inspectors and Environmental Scientists in our district offices;
- Emergency Services Coordinators and Environmental Scientists to work in Emergency Programs; and

CDFA AUS and CAHFS Lab System Release California Livestock Antibigrams

By: Antimicrobial Use and Stewardship Branch

The California Department of Food and Agriculture (CDFA) Antimicrobial Use and Stewardship (AUS) program and the California Animal Health & Food Safety (CAHFS) Lab System are pleased to announce the availability of updated livestock antibigrams for California-licensed veterinarians.

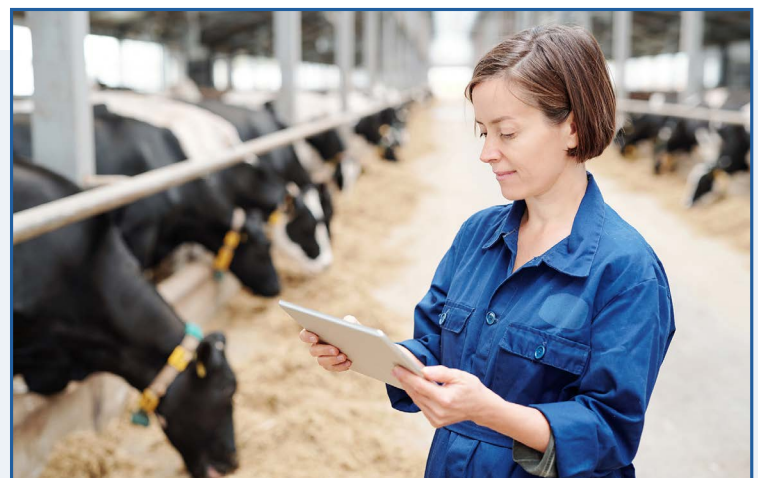
Antibigrams are important clinical tools to support a One Health approach for improving antimicrobial stewardship and can be used by clinicians both to guide initial antibiotic therapy and to assess trends in antibiotic resistance.

For additional information on antibigrams and how to use them in veterinary practice, check out the following educational materials on the CDFA AUS website:

- [Antimicrobial Selection: Considerations for Veterinarians](#)
- [CAHFS Antibigram Development Process](#)
- [California Livestock Antibigrams: A User Guide](#)

If you are a California-licensed veterinarian, have not previously registered to receive the antibigrams, and would like to register to receive the antibigrams as they become available, please complete this [livestock antibigrams survey](#) (if link does not work, please copy this address: https://cdfa.qualtrics.com/jfe/form/SV_eKamApBZinWXpl).

If you received antibigrams in previous years, you do not need to re-register.



- Seasonal Agricultural Technician vacancies in the EMMP and CAHEN programs.

All positions are or will be posted through [CalCareers](#). If you would like to find out more, you can reach out to Dr. Jessica Light, Assistant Branch Chief at Jessica.light@cdfa.ca.gov.

Staffing Changes in the AHB

By: Mandy Murray, DVM, MPVM, PhD, AHB Branch Chief

Towards the end of 2022 and throughout 2023, we had several long-time employees retire or leave the department for other adventures. Dr. Greg Ledbetter, Veterinarian in Charge (VIC) of the Tulare District; Dr. Hector Webster, swine and small ruminant program lead; Dr. Anita Edmondson, Branch Chief; Dr. Mike Poulos, Redding District VIC; and Nancy Ragan, administrative support for the Equine Medication and Monitoring Program (EMMP); all retired after a career (in some cases a second or third career) in State service. Dr. Andrea Mikolon moved on from CDFA to pursue her passion in epidemiology with the USDA. We send a heartfelt "Thank You" to those who have left CDFA for their years of service and dedication.

With these departures, we have filled some positions with both prior CDFA employees as well as outside hires. Join me as we welcome staff to their new positions:

- **Dr. Maureen Lee-Dutra** became the new Veterinarian in Charge (VIC) of the Tulare District.
- **Dr. Maryaam Goshgarian** took on the VIC position in the Modesto District as Dr. Randy Anderson, the former VIC, spent his last year with the Department focusing on the State swine program and HPAI response. Both Dr. Goshgarian and Dr. Anderson are retiring in 2024, so stay tuned for new leadership in the Modesto District.
- In Redding, **Dr. Steven Gallego** has taken the reins as the new VIC.
- **Dr. Jessica Light** has joined the Sacramento office as the Assistant Branch Chief.
- **Dr. Kavishti Kokaram** has changed positions and is the new lead for the Animal Disease Traceability (ADT) program and provides oversight for the Secure Food Supply program.
- **Dr. Danny Dickason** joined the AHB team to lead the newly developed Wildlife-Livestock Interface program.
- **Dr. Alexi Haack** transitioned from the California Animal Health Education Network (CAHEN) program into a Veterinarian Specialist position in the Statewide Avian Health program.
- **Sara Banchemo** joined the AHB team to become the new AHB Finance and Administration Manager.
- The Branch administrative unit hired **JoAnn Scott**, formerly with the Secure Food Supply program, to be part of the Branch financial team.
- **Christina Murphy** joined the AHB as the new administrative support staff for the EMMP.
- The Emergency Preparedness and Response Section of the AHB continues to increase the Branch capabilities by hiring **Jessica Dampier** and **Ali Thompson** into Senior Emergency Services Coordinator positions for training and planning, respectively.
- The Tulare District also added **Tim Chavez** and **Luis Gonzalez** as a Livestock Inspector and Environmental Scientist, respectively.



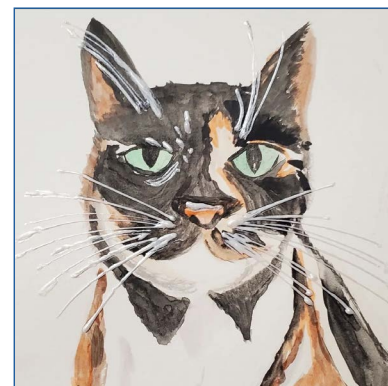
AHB Staff Biographies

Sara Banchemo, **Admin and Finance Manager**

I was born in Southern California and raised in Sacramento. I enjoyed spending my childhood playing outdoors and camping throughout California. I home-schooled myself from middle school through high school, which allowed me the freedom to pursue a career in modeling during my teenage years.

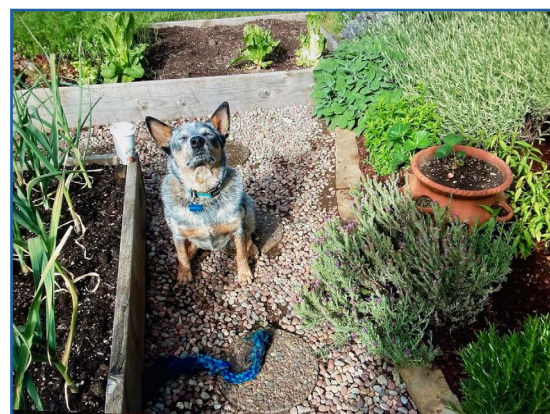
After high school, I studied Wildlife Biology and minored in Rangeland Management at American River College. I started with the California Department of Food and Agriculture (CDFA) in 2007 as an Agricultural Technician with the Integrated Pest Control (IPC) Branch in the Plant Health and Pest Prevention Services Division, assisting with insect trapping and working on various program advisory boards. I worked through the state analyst series at IPC until 2016 when I took a position with the CDFA CalCannabis Division. In 2021, CalCannabis merged into the Department of Cannabis Control. There, I helped develop the Office of Grants Management. My previous experiences working at CDFA inspired me to apply for my current position as Admin and Finance Manager with the Animal Health Branch.

In my free time, I enjoy hanging out with my family, attending concerts and 49er games, watching and reading anything fantasy/science fiction, painting, and camping. I live in Fair Oaks with my husband (Edward), five-year-old daughter (Elizabeth), Silver Labrador (Khaleesi), two cats (Ursula and Stella), and Kingsnake (Elvis).



Christina Murphy, **Management Services Technician**

I was born and raised in Lodi, California. Growing up, my family farmed Tokay grapes for the local wineries in Acampo and managed a Holstein dairy in Herald. In addition, I rode horses and showed Western Pleasure, Trail, and Showmanship in open and schooling shows or 4-H. I was the president of Sacramento County Horse 4-H and enjoyed the Sacramento County Fair, teaching kids, and training horses. I was also part of the Galt FFA Horse judging team. I have a bachelor's degree in Community Health Education from Portland State University. In my free time, I enjoy all things gardening, cooking, and exploring the Auburn Recreational area with my Cattle dog Greydog.



Contact Information

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Visit our website:

www.cdfa.ca.gov/ahfss/Animal_Health/Index.html

■ Animal Health and Food Safety Services

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■ Other AHFSS Branches

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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

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

■ United States Department of Agriculture

Dr. Donald Herriott
District Director, District 3

Dr. Larry Rawson
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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.