

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.



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CALIFORNIA DEPARTMENT OF
FOOD & AGRICULTURE

Animal Health Branch Newsletter

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Branch Chief's Message

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

Happy New Year to all!

As you read this newsletter, I have stepped down from the Animal Health Branch Chief position after spending 29 years of my 42-year veterinary career with the Branch. I thank all of you for the opportunity and support while serving as the Branch Chief.

Looking back at my veterinary career, I have been privileged and honored to work with great mentors, colleagues, and advocates for California's agriculture; I have learned from the best in my field. I value the connections and friendships I have made over the past decades within the animal industry, partners and veterinarians, and trust that these relationships will continue.



The Animal Health Branch staff are a dedicated, motivated, and innovative team. They bring expertise and knowledge to exclude foreign animal diseases and ceaselessly respond to animal health emergencies as they work to protect animal agriculture in our State and Nation.

As we move into 2023, I hope all of you, your families and your friends have a safe, healthy, happy, and successful year.

Thank you,

Anita Edmondson

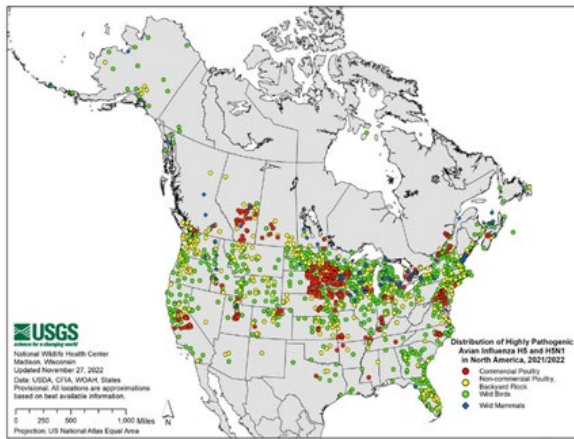
Situation Update: Highly Pathogenic Avian Influenza in California and the United States

By: Felicia Pohl, Research Scientist, Avian Section

Highly Pathogenic Avian Influenza (HPAI) unfortunately continues to thrive in the country as winter comes upon us.

As of December 31, 2022 in the United States, HPAI has been documented in 715 domestic flocks in 47 states (approximately 57.8 million birds affected). In addition, over 5,221 wild bird cases have been found. Some of the wild birds affected include geese, ducks, pelicans, turkey

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Distribution of HPAI H5 and H5N1 in North America.

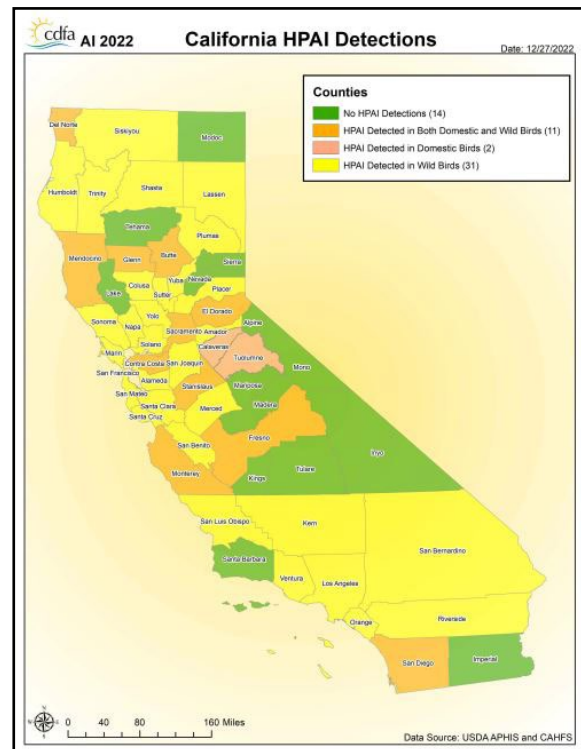
vultures, hawks, swans, and owls. In some states, there have even been some mammals (e.g. foxes, raccoons, skunks, seals, etc.) that have been affected (most likely from preying on infected birds). For an up-to-date list of confirmed cases in the United States, please visit: [USDAAPHIS | 2022 Detections of Highly Pathogenic Avian Influenza](https://www.usdaaphis.com/resources/2022-detections-of-highly-pathogenic-avian-influenza)

As of December 31, 2022, there have been a total of forty-four (44) counties that had at least one case of HPAI detected, in wild birds, domestic birds, or both. More cases are anticipated this coming migratory season. It is important to note that HPAI is widespread in California and may also be present in other counties not listed 2021/2022, USGS.gov (due to having no lab submissions from those counties). For information on current HPAI control areas (affected zones that may require permits for movement of poultry/poultry

products), check out the [Quarantine and 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
- 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 -Wildlife Health Lab - Avian Investigations](#) directly.

The Eurasian H5N1 HPAI strain currently circulating in the United States poses low risk to humans, and poultry and eggs remain safe to eat.

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



Aphis.usda.gov

In-roads Into Modern *Tritrichomonas* Testing

By: Kavishti Kokaram, DVM, DACVPM, Bovine Specialist

California was able to make significant strides towards improving the State *Trichomonas* Program following the validation and release of a new PCR assay for *Tritrichomonas foetus* by the Davis CAHFS laboratory this past fall. This Reverse Transcription real-time PCR (RT-qPCR) provides significant advantages over the real-time PCR (qPCR) previously offered. Advantages of this new assay include:

- Enhanced sensitivity due to detection of both RNA and DNA target sequences;
- Reduced incidence of sample contamination and faster potential turn-around times as no incubation step is required;
- Greater flexibility in sample collection and shipping as samples can be collected in either phosphate buffered saline (PBS) or lactated Ringer's solution (LRS);

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- Greater flexibility with shipping to the laboratory (five [5] days if chilled, seven [7] days if frozen), with further flexibility expected in the new year following validation of samples in saline.

As of November 2022, many practitioners have begun to take advantage of this assay, with only minimal issues identified during the transition; primarily with regards to collection and submission of samples in at least 2mL of media (LRS or PBS) in 15mL conical tubes and meeting the shipping temperature requirements. Practitioners have also begun to see some new terms in their results, “Unofficial” and “Unsuitable,” while much less of another, “Contaminated”. “Unsuitable” samples either were outside the recommended volume or temperature range, or the internal control indicated that no bovine DNA was detected in the sample. “Unofficial” samples are most commonly samples that were submitted below the recommended minimum volume that still triggered the internal control for bovine DNA. More significantly, due to no longer having to incubate the samples, likelihood of sample loss due to contamination is now negligible.

The improved RT-qPCR assay represents a significant improvement for the California Trichomonas Program and overall surveillance across the Western region with continued adoption by practitioners in cooperation with state animal health officials.

Just Lamé or is it BSE? A Potential Mad Cow Reminder

By: Kavishti Kokaram, DVM, DACVPM, Bovine Specialist

This past summer, CDFA was notified by USDA Food Safety and Inspection Service (FSIS) of a Holstein steer that was identified with suspect neurologic signs at a slaughter establishment in Southern California. The steer was sampled for both Rabies and Bovine Spongiform Encephalopathy (BSE) prior to final necropsy at CAHFS. The final diagnosis on this case was a degenerative joint disease but it was a poignant reminder to maintain these two conditions and especially BSE on our diagnostic (or rule-out) radars when presented with cattle with neurologic symptoms.



BSE, widely known as “Mad Cow Disease,” is a fatal disease of cattle first recognized in the United Kingdom (UK) in 1986. Most research suggests that this progressive neurological condition is caused by an abnormal protein, known as a prion. BSE primarily spreads through ingestion of protein meal rendered from tissues of an infected animal. Clinical signs typically may take between two (2) and eight (8) years before presentation, and may include changes

in temperament such as nervousness, disorientation, and progressive incoordination. Scientific evidence supports a link between exposure to the disease agent that causes BSE in cattle and the human disease variant Creutzfeldt–Jakob (vCJD) disease enhancing public health concerns around this disorder. The targeted population for ongoing surveillance focuses on cattle exhibiting signs of central nervous disorders or any other signs that may be associated with BSE, including emaciation or injury, and dead cattle, as well as non-ambulatory animals.

Due to effective surveillance and the various mitigation steps put into place by the FDA prohibiting high-risk tissue materials of cattle origin from use in all animal feed since 2008 and the fact that the typical strain of BSE has not been identified in the US (with the exception of a single imported cow in 2003), the World Organization for Animal Health (WOAH, previously called OIE) has categorized the U.S. as a negligible BSE risk since 2013. However, there have been previous detections of the atypical form on several occasions with the last detection being seen in 2018. Despite this designation however, maintenance of this low-risk categorization is dependent upon our continued surveillance and diligent awareness of this condition.

Transporting Pre-weaned Calves in Cold Weather

By: Elizabeth Cox MS, DVM, AHFSS Animal Care Program

A very common practice is for newborn dairy heifer and bull calves to leave the dairy where they are born, to be raised by a custom calf grower or calf ranch. This transport is particularly stressful for young calves who have not developed a mature immune system, are unable to readily consume feed and water on their own, and are just learning to use their legs. Winter months bring additional unique challenges for calf caretakers who are responsible for ensuring these young calves reach their destination alive and healthy.

Both short and long trailer journeys are stressful for calves. Pre-weaned calves can be weak, have difficulty walking, are susceptible to extremes of cold and heat, and are vulnerable to disease. In addition, young calves also have modest energy reserves and are susceptible to cold stress due to limited ability to thermoregulate.

At the recent Veal Farmers of Ontario 2022 Healthy Calf Conference, Dr. Devon Wilson from University of Guelph presented on this important topic of transporting calves. She shared her recommended “Four H’s” to follow when determining if pre-weaned calves are fit to ship which are summarized below:

Healthy – Sick calves should not be transported. Sick calves need to stay on the farm of origin for appropriate treatment or euthanasia. Only load calves that are able to stand and walk on their own, ears ups, clear nose, eyes bright and alert and no signs of scours. Pre-weaned calves may need to be carried onto the trailer for loading purposes, but only calves that have the ability to stand and walk are fit for transport.

Heavy – Research has shown that heavier (breed and age-related) calves have reduced risk of developing common calfhood diseases after the stress of transportation. Dr. Wilson recommends waiting until calves are 14 days of age until transportation and reminded the virtual audience that under the European Union (EU) Transport Regulation, a calf under 10 days of age can only be transported for a trip less than 62 miles and less than eight hours total trailer time. Certainly, calf breed and age are out of control of the home dairy for the immediate decision to transport pre-weaned calves, therefore it is very important to focus on the other three H’s outlined by Dr. Wilson to have the best calf outcome.

Hydrated – Ensure calves are well-hydrated before loading onto the trailer. This is accomplished by providing a colostrum meal to newborn calves and a milk feeding to older pre-weaned calves prior transport. Pre-weaned calves risk starvation and thirst on long journeys (greater than eight hours of total transport time) and it important to provide a meal prior to cover their biological needs and reduce the risk of sequela from a negative energy balance.

High Immunity – Calves with lower passive immunity, as measured by IgG levels in blood, have a significantly higher likelihood of later needing treatment with antibiotics or anti-inflammatory drugs. National Milk Producers Federation FARM Program recommends all pre-weaned calves (heifers and bulls) receive colostrum or colostrum replacer within 6 hours after birth, even if immediately transported off the farm and this activity falls under a Mandatory Corrective Action Plan (MCAP) if the dairy is not providing this vital first meal to calves.

The total time of transportation on a trailer for pre-weaned calves, even if the final destination is not geographically far from the home dairy, is important to consider and minimize to maintain under eight hours of transport for pre-weaned calves. A trailer might be making multiple stops to pick up calves from multiple locations and the total



Dr. Cox with a calf in a transporting trailer.

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time in the trailer might be underestimated. Caretakers need to use their own good judgment to prevent hypothermia, frostbite, or even the death of pre-weaned calves during transport.

When outside temperatures drop in the winter remember to consider the wind chill factor, including the moving trailer wind chill, when planning transportation of pre-weaned calves. As calves are unable to regulate their body temperatures less well than older livestock, extra consideration must be given to temperatures inside and outside the livestock trailer.

		Wind Chill Index (WCI)																	
Wind Speed	Low Temperature °F																		
	-10	-8	-6	-4	-2	0	2	4	6	8	10	12	14	16	18	20	22	24	26
25	-59	-56	-53	-50	-47	-44	-41	-38	-35	-32	-29	-26	-23	-20	-17	-14	-12	-9	-6
23	-57	-54	-51	-48	-45	-42	-39	-36	-33	-30	-28	-25	-22	-19	-16	-13	-10	-7	-4
21	-54	-51	-49	-46	-43	-40	-37	-34	-31	-28	-26	-23	-20	-17	-14	-11	-8	-5	-3
19	-52	-49	-46	-43	-40	-37	-35	-32	-29	-26	-23	-21	-18	-15	-12	-9	-6	-4	-1
17	-48	-46	-43	-40	-37	-35	-32	-29	-26	-24	-21	-18	-15	-13	-10	-7	-4	-2	1
15	-45	-42	-39	-37	-34	-31	-29	-26	-23	-21	-18	-15	-13	-10	-7	-5	-2	1	4
13	-41	-38	-36	-33	-30	-28	-25	-23	-20	-17	-15	-12	-9	-7	-4	-2	1	4	6
11	-36	-33	-31	-28	-26	-23	-21	-18	-16	-13	-11	-8	-6	-3	-1	2	4	7	9
9	-30	-28	-26	-23	-21	-18	-16	-14	-11	-9	-6	-4	-2	1	3	6	8	10	13
7	-24	-21	-19	-17	-15	-12	-10	-8	-5	-3	-1	1	4	6	8	10	13	15	17
5	-15	-13	-11	-9	-7	-5	-3	0	2	4	6	8	10	12	14	16	18	21	23
3	-4	-2	0	2	4	6	7	9	11	13	15	17	19	21	22	24	26	28	30

Wind chill chart from Beef Quality Assurance (BQA) Master Cattle Transporter Guide

Winter Best Practices for Transporting Pre-Weaned Calves:

- Keep in mind cattle thermoneutral zones when planning transportation of pre-weaned calves. The thermoneutral zones are the environmental temperatures where cattle do not need to expend extra energy to keep warm or cool off
 - Pre-weaned calf less than one (1) month old: Between 50°F and 77°F
 - Calf older than one (1) month: Between 42°F and 77°F
 - Adult dairy cattle: Between 41°F and 77°F
- Ensure calves have dry hair coat before loading to reduce body heat loss during a drafty transport.
- Continue to keep calves dry by covering trailer slats to reduce cold air entering the trailer while also maintaining ventilation.
- Bed trailer floors to provide a barrier between the calves and the frozen trailer floor and increase traction for unstable young calves.
- Wet bedding should be changed frequently to prevent it from freezing.
- Avoid overcrowding the trailer to allow the calves to be able to move freely and reduce the risk of frostbite.
 - Pre-weaned calves require enough space to be able to lie down during transit because they tire quickly:
 - Small calves (100 pounds) require 4-5 square feet per calf.
 - Medium sized calves (250 pounds) require 6-8 square feet per calf.
- Check pre-weaned calves on a long haul (eight [8] hours or longer) after two (2) hours on the road, and then every four (4) hours after hauling. Remember to keep stops as short as possible in extreme cold conditions.
- DO NOT ship pre-weaned calves that are unable to withstand the rigors of transportation.

References:

[FARM Program requirements for pre-weaned calves](#)

[BQA Master Transporter Guidance](#)

[Canadian Codes of Practice](#)

[BQA Transportation Manual](#)

Forage Fears: Multistate Equine Botulism Outbreak

By: Emily Nietrzeba, DVM, MPH, Equine Section Lead

Horse owners, as well as owners of many alfalfa-consuming livestock and pets, have been on unexpected high alert since early December following a recent fatal outbreak of botulism that has affected at least 98 horses in four states. The FDA, in cooperation with state agriculture departments in Colorado, Louisiana, New Mexico, and Texas, continues to investigate death and illnesses in horses that have been linked to consumption of alfalfa cubes, traced to a distributor in Colorado (detailed recall and reporting information is available on the [FDA Animal & Veterinary Outbreak Advisory](#)). At least 48 of the affected horses have died or were euthanized due to poor prognosis, with clinical signs consistent with those of botulism.

Botulism, also referred to as “forage poisoning” or “shaker foal syndrome,” is caused by potent toxins produced by *Clostridium botulinum* bacteria and affected horses have an extremely high mortality rate, which can be upwards of 80%. The progressively paralyzing toxins can be directly ingested through contaminated grain or forage, or the bacteria, which lives in the soil as well as the gastrointestinal tracts of many carrier mammals, can be ingested via its dormant spores in the soil or enter the bloodstream directly through wound contamination, the latter most commonly seen in the case of umbilical infections in neonates. While feed and tissue sample testing is currently in progress, in the case of the most recent outbreak, decaying animal carcass material containing the botulinum toxin was most likely (unintentionally) incorporated into the alfalfa during harvesting and then processed into the cubes for feed distribution.



Clinical signs of botulism can be difficult to differentiate from those of other progressive neurological diseases and can also be difficult to diagnose. The botulinum toxins can rarely be identified in blood specimens, and as the Clostridial bacteria is often naturally present in the horse's intestinal tract, bacterial culture is not conclusively diagnostic. Clinical signs are those of progressive muscle weakness, as the botulinum toxin permanently binds and inhibits nerve transmission. Initial presentation can include facial droop, salivation, loss of tongue tail tone, and difficulty eating and chewing despite a healthy appetite. As the muscle weakness progresses, muscle tremors, labored breathing, excessive sweating, and abnormal gait can be seen, with death eventually resulting from respiratory muscle paralysis. Early aggressive intervention is critical for recovery, but even if successful, the recovery period is usually prolonged. Timely and routine vaccination is also critical for prevention, and a largely effective botulinum Type-B (the toxin most commonly affecting equids) toxoid is readily available.

This recent outbreak is a timely and unfortunate reminder to be vigilant and consider this less common cause of neurological disease in horses, and to seek rapid veterinary care at the first onset of any neurological presentations. All horse and livestock owners are reminded to **immediately** consult a veterinarian if their animal has consumed or been exposed to any of the recalled alfalfa products linked to this current outbreak (all details and reporting information are available on the FDA advisory link above) and/or display any neurological signs such as difficulty eating or swallowing, muscle tremors, difficulty standing, or collapse. Veterinarians and horse owners are also reminded to always consider rabies and other potential zoonotic or infectious causes of any neurological signs.

Case Report: *Klebsiella Pneumoniae* Overcomes a Flock of Pigeons

By: Laura Bradley, DVM, Ann Ikelman, DVM, Alexi Haack, DVM, and Charlene Rivera, DVM
California Avian Health and Education Network (CAHEN)

A backyard pigeon flock owner called our California Sick Bird Hotline to report that 30 of 40 white releasing pigeons died over a two-week period. The pigeons are used for events such as weddings but had not been used for this purpose for 2-3 months prior to signs of illness. Clinical signs included diarrhea, inappetence (no appetite), drooping wings, and several of the birds presented with acute (sudden) death. The following additional history was provided: No new birds were introduced to the home flock, no recent visitors interacted with the flock, no commingling between the home flock and wild birds, and the owner was using a “4-in1- powder” to treat his flock with no signs of improvement.

Based on the history, high mortality, and clinical signs, one of the top differentials for this case was a particular variant of avian paramyxovirus-1 (APMV-1) called pigeon paramyxovirus-1 (PPMV-1). Working with the owner, we decided to pursue a specialized necropsy through the [California Animal Health and Food Safety \(CAHFS\) labs](#). A necropsy includes testing for a variety of diseases to help the pathologist investigate why a flock member has died and if it has a disease that can be treated to prevent disease spread. For backyard flocks of chickens, turkeys, squabs, and/or waterfowl of less than 1,000 birds, owners or their trusted veterinarians can submit up to two deceased birds for evaluation for \$25. If the birds do not meet these criteria, the laboratory charges \$140/bird. If live sick birds are submitted, they will be humanely euthanized at the lab. For this flock of pigeons, the owner elected to submit two birds for necropsy.



While some types of avian paramyxoviruses like PPMV-1 are endemic (locally occurring), one known as virulent Newcastle Disease (vND) is the most concerning and considered a foreign animal disease (FAD) in the United States. When a detection of vND is confirmed, a Federal and State regulatory response is put in place to eliminate the disease from the United States. This disease can be both contagious and fatal, affecting all bird species. Chickens are the most susceptible species to vND and will experience mortality rates close to 100%. In 2018, Southern California's backyard and commercial poultry flocks were significantly impacted by a devastating outbreak of vND that lasted more than two years before being eradicated.

The type and severity of clinical signs of vND vary among bird species but often sudden death is the only clinical sign seen in a naïve (unexposed – either to virus or vaccination) flock exposed to vND. Other signs may include greenish colored diarrhea, inappetence (lack of appetite), swelling and redness of the eyelids, straw colored fluid from the mouth and/or nasal openings, and respiratory distress (struggling to breathe). Neurologic signs such as torticollis (twisting of the head and neck) and paralysis of the wings and/or legs are also commonly observed.

PPMV-1 circulates in both wild and domesticated Columbiformes (pigeons and doves). PPMV-1 can cause high mortality (death) in pigeons with the predominant clinical signs often being neurologic, especially torticollis.

In this case PCR test results for APMV-1 (which is also a screening test for PPMV-1), vND and Influenza A were negative. The pathologist noted that there were no significant gross or histological abnormalities. However, large numbers of *Klebsiella pneumoniae* bacteria were isolated from the lungs of both birds. Based on these laboratory findings it was concluded that the submitted carcasses succumbed hyper acutely to septicemia caused by *Klebsiella pneumoniae*. These microorganisms are commonly found enteric (gut) bacteria that rarely become deadly to birds, humans and other animals, but which can cause opportunistic infections, especially in immunocompromised individuals. In this case, it is the most likely contributor to the flock die-off.

A *Klebsiella pneumoniae* outbreak does not require a regulatory response, but a plan to move forward with cleaning, disinfection, and increased biosecurity measures was discussed and put into motion prior to the owner
(Continued on page 9)

restocking his lofts with a new healthy flock. Biosecurity measures should include prevention of contact between the domestic flock and wild birds.

APMV-1 viruses can cause conjunctivitis in humans which is usually mild and self-limiting. *Klebsiella pneumoniae* can cause pneumonia, urinary tract infections, and other infections in humans and requires antibiotic treatment. Since both APMV-1 viruses and *Klebsiella pneumoniae* bacteria have the potential to be zoonotic, the use of personal protective equipment (PPE), especially well-fitting N95 masks, gloves and goggles, around sick birds or when cleaning coops and lofts is recommended. For additional background information on APMV-1, currently known as Newcastle disease virus (NDV), please refer to this [Iowa State University factsheet](#) and this [Penn State article](#).

Bird owners with flocks that have experienced any unusual/suspicious illness or deaths should contact our CDFA Sick Bird Hotline at 866-922-BIRD (2473). Follow us on Facebook at California Avian Health Education Network and Instagram @cahensocal.

Be on the lookout for CDFA's 2023 Avian Calendar at your local feedstore or any future CAHEN outreach events!

Foreign Animal Disease Investigations For Reporting Period September 16 - December 15, 2022

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 control and contain. 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 impact international trade. In addition, some FADs can be zoonotic, posing a public health risk. Therefore early disease detection is critical to implementing strategies to control, contain, 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 are developed and can be viewed on the [CDFA Preparedness and Response page](#).

To protect California's livestock industry, FAD diagnosticians investigated 136 FAD suspicious cases (Table 1) between September 16 and December 15, 2022. Nearly 99% of these investigations were to rule out Foot and Mouth Disease (FMD) in pigs shipped to slaughterhouses in California. In all of these cases, lesions were caused by Senecavirus A (SVA). SVA infection is an endemic disease in the US; however, it triggers a FAD investigation due to the similarity of lesions to FMD. Any animal diseases presenting similar signs to FADs must be treated as such until FAD can be ruled out.

All Emergency conditions listed in the [California reportable animal disease list](#), which is updated every January, must be reported to the local animal health authorities within 24 hours. The AHB district offices' contact information is listed on the last page of this newsletter and on the reportable disease list.

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

AHB Districts	Disease	Species	Sample Type	Number of Investigations	Destination Lab*
Modesto	Foot and Mouth Disease (FMD), Senecavirus A (SVA)	Porcine	Swab	122	CAHFS-Davis
	FMD, Vesicular Stomatitis Virus (VSV)	Bovine	Swab	1	NVSL, CAHFS-Davis
Tulare	FMD, SVA	Porcine	Swab	12	NVSL, CAHFS-Davis
	Peste des Petits Ruminants (PPR)	Ovine	Carcass	1	NVSL, CAHFS-Davis

*NVSL: National Veterinary Services Laboratory

CAHFS: California Animal Health and Food Safety Laboratory

Brucellosis Contract Renewals

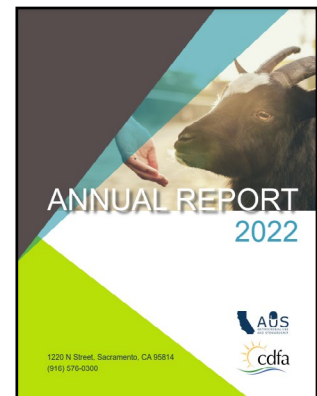
By: Elizabeth Francia Wilson, Sr. Livestock Inspector

Brucellosis contract renewals have been mailed out to veterinarians twice since October 2022. If you have not received your renewal and need it, please contact Beth Francia at 916-900-5041. All contracts are renewed every two years with an expiration date of December 31. Veterinarians must have a current signed contract on file with CDFA to purchase and administer brucellosis vaccine to calves in California. Please sign and return your contract so there will not be a lapse in your ability to receive vaccines. You may sign and email your completed contract to bruce.vaccine@cdfa.ca.gov or return by mail in the provided envelope. For additional questions, please contact your local district office or Beth Francia at 916-900-5041.

Antimicrobial Use and Stewardship (AUS) Program Updates

By: AUS Branch

AUS recently released its [2022 Annual Report](#), which presents details of AUS' work in FY 2021-2022. This fiscal year, through collaborations with researchers and laboratories, AUS produced a number of on-farm resources to be used as guidance by veterinarians and livestock producers when making informed decisions on the targeted use of antibiotics. AUS also expanded its outreach to veterinarians and livestock feed distributors through the creation of tools to facilitate the calculations relevant for veterinary feed directives (VFDs). 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 continue to build upon current scientific knowledge and inform the science community.



For more AUS program updates, visit our [website](#).

2023 CDFA Reportable Disease List

By: Emily Nietrzeba, DVM, MPH, Disease Mitigation and Surveillance

The List of Reportable Conditions for Animals and Animal Products (also known as the "Reportable Disease List") has been reviewed and updated for 2023, and the [current list](#) can be found on page 11 as well as available on the CDFA website, as well as additional information about [reporting animal diseases](#). The list is reviewed annually by veterinarians, laboratory specialists, subject matter experts, and health advisories, and also aligns with current reportable conditions as listed by the [USDA National List of Reportable Animal Diseases](#) and the [World Organisation for Animal Health](#) (formerly OIE).



LIST OF REPORTABLE CONDITIONS FOR ANIMALS AND ANIMAL PRODUCTS*

*Pursuant to Section 9101 of the California Food and Agricultural Code, Title 3 California Code of Regulations § 797 and Title 9 Code of Federal Regulations Section 161.4(f)

<p>WHO MUST REPORT: Any licensed veterinarian, any person operating a diagnostic laboratory, or any person who has been informed, recognizes or should recognize by virtue of education, experience, or occupation, that any animal or animal product is or may be affected by, or has been exposed to, or may be transmitting or carrying any of the following conditions, must promptly report the condition(s) per the lists below.</p> <p>WHAT TO REPORT: Immediately report any animal disease or condition not known to exist in the United States, any event with increased mortality and/or morbidity of unknown cause or source, and any toxicology condition likely to contaminate animals or animal products (meat, milk or eggs).</p> <p>IN ADDITION TO LISTED CONDITIONS, CALL IF YOU SEE: High morbidity or mortality, vesicles, unexplained CNS signs, unusual ticks, hemorrhagic septicemias, unusual larvae in wounds, and/or unusual or unexplained illness.</p> <p>Report any emergency, regulatory, or monitored condition within the provided time frame. Some diseases are listed under the major species of concern; if you see compatible signs for such conditions in another species, PLEASE REPORT!</p>		
EMERGENCY CONDITIONS Report within 24 Hours of Discovery	REGULATORY CONDITIONS Report within Two Days of Discovery	MONITORED CONDITIONS Report within 30 Days of Discovery
<p>MULTIPLE SPECIES</p> <p><u>General, non-specific conditions:</u> Unexplained high mortality or diseased animals; livestock exposed to toxic substances.</p> <ul style="list-style-type: none"> • Anthrax (<i>Bacillus anthracis</i>)¹ • Crimean Congo hemorrhagic fever (CCHFV)¹ • Foot-and-mouth disease (FMDV) • Heartwater (<i>Ehrlichia ruminantium</i>) • Japanese encephalitis (JEV) • Melioidosis (<i>Burkholderia pseudomallei</i>) • Rabies of livestock (<i>Rabies virus</i>)¹ • Rift Valley fever (RVFV) • Screwworm myiasis (<i>Cochliomyia hominivorax</i> or <i>Chrysomya bezziana</i>) • Surra (<i>Trypanosoma evansi</i>) • Vesicular stomatitis (VSV) <p>BOVINE</p> <ul style="list-style-type: none"> • African trypanosomiasis (Tsetse fly diseases, <i>Trypanosoma</i> spp.) • Bovine babesiosis (Cattle tick fever, <i>Babesia</i> spp.) • Bovine spongiform encephalopathy (PrP^{Sc}) • Contagious bovine pleuropneumonia (<i>Mycoplasma mycoides mycoides</i> small colony type) • Foot-and-mouth disease (FMDV) • Hemorrhagic septicemia (<i>Pasteurella multocida</i> B/Asian or E/African) • Lumpy skin disease (LSDV) • Malignant catarrhal fever (wildbeest-associated form, MCFV) • Rinderpest (RPV) • Schmallenberg virus (SBV) / Akabane virus • Theileriosis / Bovine infectious anemia (<i>Theileria parva parva</i>, <i>T. annulata</i>, <i>T. orientalis</i> Ikeda) <p>CAPRINE/OVINE</p> <ul style="list-style-type: none"> • Contagious caprine pleuropneumonia (<i>Mycoplasma capricolum capripneumoniae</i>) • Foot-and-mouth disease (FMDV) • Nairobi sheep disease (NSDV) • Peste des petits ruminants (PPRV) • Schmallenberg virus (SBV) / Akabane virus infections • Sheep pox (SPPV) and goat pox (GTPV) <p>PORCINE</p> <ul style="list-style-type: none"> • African swine fever (ASFV) • Classical swine fever (CSFV) • Foot-and-mouth disease (FMDV) • Nipah virus encephalitis (NV) • Swine vesicular disease (SVDV) <p>AVIAN SPECIES</p> <ul style="list-style-type: none"> • Avian influenza (HPAI and H5/H7 LPAI) • Turkey rhinotracheitis (Avian metapneumovirus) • Virulent Newcastle disease (velogenic viscerotropic Newcastle disease, VNDV) <p>EQUINE</p> <ul style="list-style-type: none"> • African horse sickness (AHSV) • Dourine (<i>Trypanosoma equiperdum</i>) • Glanders (Farcy; <i>Burkholderia mallei</i>) • Hendra virus infection (HeV) • Venezuelan equine encephalomyelitis (VEEV) • Vesicular stomatitis (VSV) <p>CERVIDS/LAGOMORPHS/CAMELIDS</p> <ul style="list-style-type: none"> • Middle East respiratory syndrome (MERS-CoV) 	<p>MULTIPLE SPECIES</p> <ul style="list-style-type: none"> • Brucellosis (<i>B. melitensis</i>, <i>B. abortus</i>, <i>B. suis</i>)¹ • Pseudorabies / Aujeszky's disease (SuHV-1) • Tuberculosis (<i>Mycobacterium bovis</i>)¹ • Tularemia (<i>Francisella tularensis</i>)¹ <p>BOVINE</p> <ul style="list-style-type: none"> • Bovine brucellosis (<i>Brucella abortus</i>)¹ • Bovine tuberculosis (<i>Mycobacterium bovis</i>)¹ • Trichomoniasis (<i>Trichomonas foetus</i>) <p>CAPRINE/OVINE</p> <ul style="list-style-type: none"> • Caprine and ovine brucellosis (<i>Brucella melitensis</i>)¹ • Scrapie (PrP^{Sc}) <p>PORCINE</p> <ul style="list-style-type: none"> • Porcine brucellosis (<i>Brucella suis</i>)¹ • Pseudorabies (Aujeszky's disease; SuHV-1) <p>AVIAN SPECIES</p> <ul style="list-style-type: none"> • Fowl typhoid (<i>Salmonella gallinarum</i>) • Influenza A virus H9 and emerging LPAI • Ornithosis / psittacosis / avian chlamydiosis (<i>Chlamydia psittaci</i>) • Pullorum disease (<i>Salmonella pullorum</i>) <p>EQUINE</p> <ul style="list-style-type: none"> • Contagious equine metritis (<i>Taylorella equigenitalis</i>) • Eastern equine encephalomyelitis (EEEV) • Epizootic lymphangitis (<i>Histoplasma farciminosum</i>) • Equine herpesvirus myeloencephalopathy (EHM secondary to EHV) • Equine infectious anemia (EIAV) • Equine piroplasmiasis (<i>Babesia caballi</i> or <i>Theileria equi</i>) • Western equine encephalomyelitis (WEEV) • West Nile Virus infection (WNV) <p>CERVIDS/LAGOMORPHS/CAMELIDS</p> <ul style="list-style-type: none"> • Chronic wasting disease (PrP^{Sc}) • Rabbit hemorrhagic disease (RHDV) 	<p>MULTIPLE SPECIES</p> <ul style="list-style-type: none"> • Bluetongue (BTV) • Echinococcosis / hydatidosis (<i>Echinococcus</i> spp) • Epizootic hemorrhagic disease (EHDV) • John's disease (Paratuberculosis; <i>Mycobacterium avium paratuberculosis</i>) • Leishmaniasis (<i>Leishmania</i> spp.) • Q Fever (<i>Coxiella burnetii</i>) • Severe acute respiratory syndrome (SARS-CoV-2)¹ <p>BOVINE</p> <ul style="list-style-type: none"> • Anaplasmosis (<i>Anaplasma marginale</i> or <i>A. centrale</i>) • Bovine cysticercosis (<i>Taenia saginata</i>) • Bovine genital campylobacteriosis (<i>Campylobacter fetus venerealis</i>) • Bovine viral diarrhea (BVDV, HoBPeV) • Enzootic bovine leukosis (BLV) • Infectious bovine rhinotracheitis (Bovine herpesvirus-1) • Malignant catarrhal fever (MCFV, sheep-associated form) <p>CAPRINE/OVINE</p> <ul style="list-style-type: none"> • Caprine arthritis/encephalitis • Contagious agalactia (<i>Mycoplasma agalactiae</i>, <i>M. capricolum</i> subsp. <i>capricolum</i>, <i>M. mycoides</i> subsp. <i>capri</i>, <i>M. putrefaciens</i>) • Enzootic abortion of ewes (Ovine chlamydiosis; <i>Chlamydia abortus</i>) • Ovine progressive pneumonia (Maedi-Visna virus) • Ovine epididymitis (<i>Brucella ovis</i>) • <i>Salmonella abortusovis</i> infection • Sheep scabies (Body mange; <i>Psoroptes ovis</i>) <p>PORCINE</p> <ul style="list-style-type: none"> • Porcine cysticercosis (<i>Taenia solium</i>) • Porcine reproductive and respiratory syndrome (PRRSV) • Senecavirus A infection (SVA) • Swine enteric coronavirus diseases, including transmissible gastroenteritis • Swine influenza (SIV or S-OIV) • Trichinellosis (<i>Trichinella spiralis</i>) <p>AVIAN SPECIES</p> <ul style="list-style-type: none"> • Avian infectious bronchitis (IBV) • Avian infectious laryngotracheitis (ILT) • Duck viral hepatitis (DHAV) • Goose parvovirus infection (GPV) • Infectious bursal disease / Gumboro disease (IBDV) • Influenza A viruses (see Emergency Conditions for HPAI and H5/H7 LPAI) • Mycoplasmosis (<i>Mycoplasma synoviae</i> and <i>Mycoplasma gallisepticum</i>) <p>EQUINE</p> <ul style="list-style-type: none"> • Ulcerative lymphangitis / Pigeon fever (<i>Corynebacterium pseudotuberculosis</i>) • Equine herpesvirus-1 and 4 infections (excluding EHM) • Equine influenza (EIV) • Equine viral arteritis (EAV) • Strangles (<i>Streptococcus equi</i> spp <i>equi</i>) <p>CERVIDS/LAGOMORPHS/CAMELIDS</p> <ul style="list-style-type: none"> • Camelpox (Camelpox virus) • Myxomatosis (Myxoma virus)
<p>WHERE TO REPORT:</p> <p>CA Department of Food and Agriculture Animal Health Branch (AHB) District Offices:</p> <p>Redding 530-225-2140 Modesto 209-491-9350 Tulare 559-685-3500 Ontario 909-947-5932</p> <p>CDFA Animal Health Branch Headquarters 1220 N Street Sacramento, CA 95814 Telephone 916-900-5002</p> <p>OR</p> <p>US Department of Agriculture Animal and Plant Health Inspection Services Veterinary Services (VS) 10365 Old Placerville Road, Suite 210 Sacramento, CA 95827-2518 Toll free at 1-877-741-3690</p> <p>REPORT FISH, AMPHIBIAN, CRUSTACEAN, BEE, AND MOLLUSK DISEASES as listed on USDA National List of Reportable Diseases</p>		

¹ Diseases in blue, seen in any species, are also reportable to the California Department of Public Health (CDPH)

AHB Staff Biography



Dr. Jenny Brinson is originally from western Montana. She attended Washington State University and received her Bachelor of Science in Animal Science in 2011. She continued on to veterinary school at WSU with a dairy emphasis and earned her Doctorate of Veterinary Medicine in 2015. After graduation, she entered private dairy practice in the central valley. Her areas of interest included calf and heifer management, herd health, and cattle handling. Dr. Brinson is excited to continue supporting agriculture through a different avenue as a field veterinarian for the Animal Health Branch. In her spare time, she enjoys spending time with her husband, also a livestock veterinarian, their son, and their dogs while hiking, skiing, and traveling.

Contact Information



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