Happy New Year! I think everyone is happy to see 2020 in the rear-view mirror and look forward to the millions of doses of COVID-19 vaccine being distributed and administered to our national and global population over months to come. The pandemic has been devastating to so many—physically, mentally, and economically. And yet, as a country, as a State, as a Department and as a Branch; we will persevere and appreciate the silver linings that the pandemic presented to us. As California Department of Food and Agriculture (CDFA), Animal Health Branch (AHB) employees, we have instituted the good biosecurity practices on ourselves, our families and our friends, that we have been preaching about for years to protect animal agriculture. We have also learned to conduct business efficiently and effectively while maximizing teleworking from home offices for most of our workweek. I continue to be so impressed with the dedication and ingenuity of AHB staff in protecting animal agriculture in our State and nation.

As a Branch, our highest priority remains the continued and successful exclusion of foreign animal diseases from California. In 2020, after a two-year disease incident marathon, we witnessed the eradication of virulent Newcastle Disease (vND) in California and the end to the regional quarantine in Southern California, allowing poultry to again move freely within the State. This eradication effort had at one (1) point over 300 emergency responders with over 3,000 individual personnel rotations deployed throughout the response. The dedicated responders worked seven (7) days a week and twelve-hour days for nearly the entire response. What a remarkable effort by vND emergency responders from the California Department of Food and Agriculture (CDFA), United States Department of Agriculture (USDA), Cooperative Agricultural Support Services Authority (CASS), and the California Animal Health and Food Safety (CAHFS) Laboratory, with support from CalOES, California Highway Patrol (CHP) and others! The California Avian Health and Education Network (CAHEN) has been developed to prevent or minimize another avian disease outbreak in California. A team of State and Federal personnel remains in Southern California and their effort will involve active and passive surveillance, public education and outreach, and preparedness and response plans.

As you read this AHB Newsletter, I have retired from CDFA after a seventeen-year tenure. My “second” career, following twenty-seven (27) years in private practice on the Central Coast of California, as a regulatory veterinarian has really allowed my 44-year veterinary career to come full circle. I have been afforded the pleasure of working under the California State Veterinarians, (Continued on page 2)
Chief's Message
- continued

Dr. Rich Breitmeyer and then, following his retirement, Dr. Annette Jones. Both brought professionalism, leadership and dedication to veterinary regulatory medicine, both were great mentors to me, and both are highly respected by other state veterinarians. For the past sixteen (16) years as AHB Chief, I have also been blessed with a great staff of veterinarians and other AHB professionals. It has been my privilege to work with these staff and will miss the comradery, “git ‘er done” attitude, and friendships (and I hope these to continue for years to come). I have also fostered many wonderful relationships in the CAHFS Laboratory System, the USDA, industry organizations, academia, private practitioners and other state and federal agencies. I have valued these relationships and will continue to do so. They have been notably influential in protecting California’s multi-billion-dollar livestock industry from epidemic and foreign animal disease. The Animal Health Branch is committed to continue protecting California as one of the most successful agricultural regions in the world.

I thank all of you for the opportunity and privilege to serve as AHB Chief over the past sixteen (16) years. May 2021 find all of you, your family and friends safe and healthy.

Thank you,
Kent Fowler, DVM
Retired AHB Chief

Update on SARS-CoV-2
(Causative Agent for Human COVID-19) and Animals
By: Rebecca Campagna, DVM, MPH

While SARS-CoV-2 likely had an animal reservoir, there is still no evidence that animals play a significant role in spreading SARS-CoV-2 to people. Rather, most cases of SARS-CoV-2 infection in animals suggest a reverse zoonosis, whereby animals are infected by humans. In December 2020, it was reported that a snow leopard tested positive at the Louisville Zoo in Kentucky, the first known infection in that species. It is suspected that the snow leopard acquired the infection from an asymptomatic staff member at the zoo. On January 11, 2021 it was confirmed that western lowland gorillas tested positive at the San Diego Zoo Safari Park, after a few of the eight gorillas in the troop exhibited respiratory signs. It is also suspected that the gorillas may have acquired the infection from a staff member.

As of December 14, 2020, there are global reports of 144 animals from seventeen (17) countries testing positive for SARS-CoV-2, not including mink on mink farms. Felids are the most common group with seventy eight (78) domestic cats and twelve (12) large cats, followed by fifty four (54) dogs. Approximately half (57%) of cases of SARS-CoV-2 in companion animals in the U.S. did not show clinical signs; the most common clinical signs were respiratory (75%), followed by gastrointestinal (12.5%) and non-specific (12.5%).

There have been 405 affected mink farms in ten (10) countries and sixteen (16) mink farms in four (4) states in the
Update on SARS-CoV-2 and Animals
- continued

United States. Investigations at mink farms, both in the United States and in other countries, have found that infected people can introduce the virus to mink farms and infected mink can spread the virus to each other and possibly to cats and dogs on the premises as well. However, the role of mink in spreading the virus back to people is less known. Transmission from mink to people was identified in Europe but has not yet been shown in the United States.

Denmark has experienced widespread transmission of SARS-CoV-2 on its mink farms, and mink appear to be serving as a reservoir for the virus and contributing to the ongoing transmission of the virus in the country. A mink-associated variant strain of SARS-CoV-2 ("cluster 5 variant") had been detected in both humans and mink in Denmark, which showed variations in the spike protein suggesting a decreased ability of antibodies to neutralize the virus. This variant is no longer found to be circulating in humans.

Based on studies of natural or experimental infection in animals, animals have varying susceptibility to infection:

<table>
<thead>
<tr>
<th>Highly Susceptible</th>
<th>Moderately Susceptible</th>
<th>Not Susceptible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mink</td>
<td>Ferrets</td>
<td>Non-human primates</td>
</tr>
<tr>
<td>Hamsters</td>
<td>Deer mice</td>
<td>Tree shrews</td>
</tr>
<tr>
<td>Cattle</td>
<td>Egyptian fruit bats</td>
<td>Dogs</td>
</tr>
<tr>
<td>Pigs</td>
<td>Poultry</td>
<td>Lab mice</td>
</tr>
</tbody>
</table>

The Centers for Disease Control and Prevention (CDC) has developed a Scientific Publication Tracker that summarizes publications related to SARS-CoV-2 in animals, humans, and the environment, including host susceptibility, virus reservoir, efficacy of PPE, and environmental contamination. The tracker is distributed monthly, and anyone interested in receiving it can email onehealth@cdc.gov.

People who are interested in keeping up-to-date on one health activities of federal and state agencies related to SARS-CoV-2 can sign up to participate in the CDC-hosted One Health Partners Monthly COVID-19 Update calls by emailing onehealth@cdc.gov.

- SARS-CoV-2 Now Reportable -

As of January 1, 2021, SARS-CoV-2 infection in any animal is reportable to the California Department of Food and Agriculture (CDFA) as an emergency condition. Veterinary practices, laboratories, and any individuals who are aware of a presumptive or confirmed diagnosis of SARS-CoV-2 in an animal that resides in or potentially became infected in California are required to report those test results to CDFA within twenty four hours of discovery. Reports can be via email to cavet@cdfa.ca.gov or reported as described on the CDFA List of Reportable Conditions of Animals and Animal Products.

Routine testing of animals for SARS-CoV-2 is not recommended; the California Department of Public Health has testing-guidance for veterinarians on their website (https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/SARS-CoV2(causativeagentforhumanCoVID19)TestinginAnimals.aspx). Testing animal samples for SARS-CoV-2 is offered by some private veterinary laboratories - testing by these laboratories does not require state approval. However, animals that test positive should have results confirmed by USDA's National Veterinary Services Laboratory (NVSL), the only official testing laboratory for SARS-CoV-2 in animals in the US. Official testing of animals at NVSL is strictly controlled and may be pursued only with the approval of state animal health and public health officials. Veterinarians must contact CDFA.AHFSS_COVID19_Animal_Testing@cdfa.ca.gov to coordinate confirmatory testing.
Every year the California Department of Food and Agriculture (CDFA) updates the list of reportable conditions for animals and animal products in effort to keep California safe from foreign animal diseases, diseases with zoonotic potential and diseases that could have a tremendous economic impact on our agriculture and trading businesses.

California veterinarians play a major role in this mission and timely disease recognition and reporting is a vital component of surveillance and disease control. Early recognition and reporting are essential for allowing animal health officials to respond quickly to diseases that can seriously impact animal health and the agriculture industry. Routine monitoring is crucial to identify changes in disease pattern and identify high-risk areas and groups in California. The CDFA depends on partnering with veterinarians who watch for and notify any reportable diseases in animals.

What has changed:
Two (2) major changes have occurred since the last update. First due to increased reports of severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2) in animals such as minks, dogs, cats, tigers, lions and white tail deer, and the potential risk of human infections from those animals, novel corona virus has been added to the multispecies emergency disease list. Secondly, as Rabbit Hemorrhagic disease has spread in domestic and wild rabbits in several U.S. states including California, it has been moved from an emergency to a regulated condition.

Who must report:
California law requires that any licensed veterinarian, any person operating a diagnostic laboratory and any person who has been informed, recognizes, or should recognize by virtue of education, experience, or occupation, that an animal or animal product is or may be affected by, has been exposed to, or may be transmitting or carrying and of the following conditions, must report that information to CDFA or the United States Department of Agriculture (USDA).

What to report:
Immediately report any animal disease 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). Call if you see vesicles, unusual or unexplained illness, CNS signs, mucosal diseases, hemorrhagic septicemias, unusual larvae in wounds, uncommon ticks, or high morbidity or mortality.

Where to Report:
Call the Department of Food and Agriculture, Animal Health Branch (AHB) District offices:
AHB Headquarters: 916-900-5002 or, the USDA,APHIS, Veterinary Services (VS) office at 1-877-741-3690

Please follow the link for the California reportable disease list.
https://www.cdfa.ca.gov/ahfss/Animal_Health/pdfs/CA_reportable_disease_list_poster.pdf

- Brucellosis Contract Renewals -
If you have not returned your signed Brucellosis contract renewal; you are now expired. You will no longer be able to purchase vaccine or vaccinate heifers in CA. If you have questions on your status or need another renewal sent to you, please contact Beth Francia at 916-900-5041.
The California Department of Food and Agriculture (CDFA) Animal Health Branch (AHB) and the United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) Veterinary Services (VS) personnel investigated one hundred and fifty-nine (159) Foreign Animal Disease (FAD) suspicious cases from October 1 to December 31, 2020 (Table 1). Any animal diseases presenting similar signs to FADs must be treated as such until FADs can be ruled out.

Senecavirus A (SVA) infections among the swine shipped to slaughterhouses in the Modesto area triggered 133 FAD investigations, almost eighty-four percent (84%) of all statewide FAD investigations. Even though SVA is an endemic disease, it triggers a FAD investigation due to the similarity of symptoms to Foot and Mouth Disease (FMD).

To protect California’s livestock industry and for food supply security, private practitioners, diagnostic laboratories, animal hospitals, and producers must report signs of the emergency conditions outlined in the California "List of Reportable Conditions for Animals and Animal Products" within twenty-four (24) hours by calling the CDFA AHB or the USDA APHIS VS District Office in their area. The AHB district offices' contact information can be found on the last page of this newsletter.

### Table 1. Summary of FAD investigations from October 1 to December 31, 2020

<table>
<thead>
<tr>
<th>AHB Districts</th>
<th>Disease</th>
<th>Species</th>
<th>Sample Type</th>
<th>Number of Investigations</th>
<th>Destination Lab*</th>
<th>NVSL Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modesto</td>
<td>Foot and Mouth Disease (FMD), Senecavirus A (SVA)</td>
<td>Porcine</td>
<td>Swab</td>
<td>133</td>
<td>NVSL, CAHFS-Davis</td>
<td>All positive for SVA</td>
</tr>
<tr>
<td></td>
<td>Vesicular Stomatitis Virus (VSV)</td>
<td>Equine</td>
<td>Swab, Serum</td>
<td>1</td>
<td>NVSL, CAHFS-Davis</td>
<td>Negative</td>
</tr>
<tr>
<td></td>
<td>VSV</td>
<td>Equine</td>
<td>Swab</td>
<td>1</td>
<td>NVSL, CAHFS-Davis</td>
<td>Negative</td>
</tr>
<tr>
<td></td>
<td>Virulent Newcastle Disease (vND)</td>
<td>Avian</td>
<td>Swab</td>
<td>1</td>
<td>NVSL, CAHFS-Davis</td>
<td>Negative</td>
</tr>
<tr>
<td></td>
<td>FMD, SVA</td>
<td>Porcine</td>
<td>Swab</td>
<td>7</td>
<td>NVSL, CAHFS-Davis</td>
<td>All positive for SVA</td>
</tr>
<tr>
<td></td>
<td>Schmallenberg</td>
<td>Ovine</td>
<td>Swab</td>
<td>1</td>
<td>NVSL, CAHFS-Davis</td>
<td>Negative</td>
</tr>
<tr>
<td></td>
<td>VSV</td>
<td>Equine</td>
<td>Swab</td>
<td>1</td>
<td>NVSL, CAHFS-Davis</td>
<td>Negative</td>
</tr>
<tr>
<td></td>
<td>FMD, SVA</td>
<td>Porcine</td>
<td>Swab</td>
<td>13</td>
<td>NVSL, CAHFS-Davis</td>
<td>All positive for SVA</td>
</tr>
<tr>
<td></td>
<td>African Swine Fever (ASF), Classical Swine Fever (CSF)</td>
<td>Porcine</td>
<td>Swab</td>
<td>1</td>
<td>NVSL, CAHFS-Davis</td>
<td>Negative</td>
</tr>
</tbody>
</table>

*NVSL: National Veterinary Services Laboratory, CAHFS-Davis: California Animal Health and Food Safety Laboratory, Davis
Help Prevent Barbiturates from Entering Rendering and Animal/Pet Food
By: Rachelle Fong

To help prevent barbiturates from entering rendering and animal/pet food, all animals (except domestic dogs, cats and pet birds) euthanized with barbiturates must be marked on the forehead with an Orange B that is at least four (4) inches in height.

More information about this requirement can be found on the AHB website.

For questions, please contact rendering@cdfa.ca.gov.

NOTICE: EUTHANIZED LIVESTOCK/HORSES USING BARBITURATES

Effective July 30, 2020 all animals (not including domestic dogs, cats, and pet birds) euthanized with Barbiturates must be marked with an Orange B on the forehead at the time of euthanasia so that animals do not get rendered into animal feed or pet food.

No less than four (4) inches in height unless the area to be marked is less than four (4) inches, in which case, the mark shall be as large as possible.

Legible at a distance of not less than ten (10) feet.

Made using an orange all-weather livestock marker or orange pavement marking spray paint approved by the Department as suitable for producing a permanent mark.

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

Over the past few decades, the California Department of Food and Agriculture (CDF) and the United States Department of Agriculture (USDA) have invested resources in animal health emergency preparedness. California has had a unique opportunity through the 2018 Agriculture Response Management and Resources (ARMAR) Functional Exercise, and

(Continued on page 7)
Emergency Preparedness and Response Section Update  
- continued

the 2018–2020 Virulent Newcastle Disease (vND) outbreak response in Southern California to test the CDFA/USDA Unified Incident Management Team (IMT) capabilities, capacity, and readiness to respond to a large, prolonged animal disease outbreak.

One of the most critical activities following any emergency is evaluating the response and recovery performance through a comprehensive after-action gap analysis process. CDFA and USDA have co-funded a consultant firm to assess the preparation for and response to the 2018–2020 vND outbreak. This year-long project started on October 2020 and will determine the overall effectiveness of the response efforts, including an evaluation of all supporting and partnering agencies such as CDFA, USDA, California Animal Health and Food Safety Laboratory System, California Highway Patrol, California Office of Emergency Services, County Animal Control, among others. The project will entail a comprehensive review of documents, an assessment of the related data, and the development of a final report ensuring lessons learned from the response and improvements to preparedness and response can be integrated within the organizations, supporting the response to future outbreaks.

The CDFA Animal Health Branch’s (AHB) mission is to maximize preparedness amongst the branch employees to respond effectively to any potential Foreign Animal Disease (FAD) incidents in California. AHB personnel enhance their professional skill with continued preparedness/response training and exercises. A project has been funded through the USDA National Animal Disease Preparedness and Response Program to support developing targeted training that can be delivered and exercised in preparation for an outbreak and used as ‘just in time’ resources for those in unexpected positions or new hires. This project includes developing a series of infographics and short training videos about the life cycle of foreign animal disease response and its complex activities. Currently, CDFA-AHB and USDA-APHIS/VS subject matter experts have been selected to identify each function’s basic yet essential stages. A design company will assist in developing educational materials. The project is expected to be complete by February 2022, and produced materials will be used in various California and nationwide training activities.

Avian Influenza Season is Here  
By: Elise Chad, DVM, MS and Felicia Pohl, Research Scientist

Waterfowl and shorebirds (known reservoirs of Avian Influenza) are currently migrating and winter “avian flu” season is here. Conditions are similar to those in Winter of 2014–'15 when two (2) strains (H5N8 and H5N2) of Highly Pathogenic Avian Influenza (HPAI) were detected along the Pacific coast, first in wild birds and backyard flocks, then in two (2) separate commercial poultry flocks in California. HPAI introduced by wild birds then devastated Midwest poultry operations. HPAI is a transboundary disease that is an emergency reportable condition and must be reported to CDFA within twenty-four (24) hours.

Two (2) key factors make Winter 2020-'21 similar to 2014-'15:

1) A high number of HPAI outbreaks (H5N8 and other strains) in poultry and wild birds in several Asian countries.

(Continued on page 8)
Avian Influenza Season is Here - continued

This is key as three (3) of the major flyways (East Asia/Australasia, Pacific Americas, Central Americas) mix in Alaska where birds can swap AI viruses. Birds in the Pacific Americas Flyway then migrate through California.

2) California is experiencing a late wet season with less standing surface water, forcing birds to closely congregate at stopovers and making it easier for diseases to spread between birds.

Wild birds are not going to change their natural behavior and therefore it is up to poultry producers and other bird owners to protect your birds against any possible HPAI with these steps:


- **Know the Signs of HPAI**.

- **Call your veterinarian** at the first signs, or if you do not have a veterinarian, call the [Sick Bird Hotline](https://ucanr.maps.arcgis.com/apps/webappviewer/index.html?id=859cc2b3d28d4372865afa2ba2ba2457a2d) 1-866-922-2473.

- **Keep an eye on wild birds**: Check the [California Department of Fish and Wildlife Avian Investigations](https://ucanr.maps.arcgis.com/apps/webappviewer/index.html?id=859cc2b3d28d4372865afa2ba2ba2457a2d) webpage for further details and to know when to call to report dead wild birds. You can also refer to the [California Waterfowl Tracker](https://ucanr.maps.arcgis.com/apps/webappviewer/index.html?id=859cc2b3d28d4372865afa2ba2ba2457a2d) to better assess the locations of waterfowl relative to poultry farms.

Equine Herpes Myeloencephalopathy Updates

By: Katie Hatch, BS, Research Scientist

Since April 2020, there have been several Equine Herpes Myeloencephalopathy (EHM) incidents. The first incident was in Sonoma County in April 2020 when a 10-year-old Warmblood mare displayed neurologic signs, was sent to an outside veterinary hospital for treatment and confirmed positive for Equine Herpesvirus-1 (EHV-1). The home premise of forty-eight (48) exposed horses were quarantined, there were no additional cases and quarantine was released after fourteen (14) days.

The second incident was in Imperial county in August 2020 when a one-year-old Quarter Horse filly was euthanized due to severe neurologic signs and was confirmed positive for Equine herpesvirus-4 (EHV-4). Three (3) horses on the home premise were quarantined and one additional horse became febrile and tested positive for EHV-4. The quarantine was released after twenty-five (25) days.

The third incident was in El Dorado county in August 2020. A 17-year-old Thoroughbred gelding with fever and neurologic signs was euthanized and confirmed positive for EHV-1. The home premise had ten (10) additional horses

(Continued on page 9)
Equine Herpes Myeloencephalopathy Updates
- continued

put under quarantine and there were no additional cases, so quarantine was released after fourteen (14) days.

The fourth incident was in Sonoma County in October 2020 when a 30-year-old Warmblood gelding displaying fever and neurologic signs was confirmed positive for EHV-1. The gelding was quarantined in the isolation barn on the premise where it was temporarily residing after evacuating from a nearby fire in the weeks prior. One (1) additional case, a 30-year-old Warmblood mare, displayed mild respiratory signs and possible mild neurological signs was also confirmed positive for EHV-1. No other cases were confirmed, and the quarantine was released after fourteen (14) days.

The fifth incident was in November 2020 in Los Angeles County when a 14-year-old Saddlebred gelding was displaying neurologic signs and confirmed positive for EHV-1. A quarantine was issued for sixty-six (66) additional horses on the home premise and one additional horse on the premise became febrile and tested positive for EHV-1. No additional cases were confirmed, and the quarantine was released after twenty-eight (28) days.

The final EHV-1 incident of 2020 was in Ventura county in December 2020. A 13-year-old Quarter horse mare in Ventura County displayed fever and neurological signs and was confirmed positive for EHV-1. The mare was quarantined and isolated at a veterinary hospital where she was receiving supportive care and the home premises of thirty-two (32) potentially exposed horses were quarantined. The home premises’ quarantine was released after fourteen (14) days with no additional cases and the quarantine on the index case at the veterinary hospital was released after twenty (20) days after the index mare received two (2) negative tests seven (7) days apart.

West Nile Virus Updates
By: Katie Hatch, BS, Research Scientist

For 2020, a total of twenty (20) horses were confirmed positive for West Nile Virus (WNV) in California. The positive horses were located in Amador (2), Butte (1), Glenn (1), Kings (1), Merced (1), Modoc (1), Nevada (1), Riverside (2), Sacramento (1), San Bernardino (1), San Joaquin (4), Solano (1) and Stanislaus (3) counties. Fourteen (14) horses were unvaccinated, four (4) horses had unknown vaccine history and two (2) were vaccinated. Fifteen (15) horses are alive, one (1) horse died, and four (4) horses were euthanized. Horses ranged in age from one (1) to twenty (20) years, with both genders and multiple breeds represented.

West Nile Virus is a mosquito-borne virus that is maintained in the wild bird population and is spread between birds by mosquitos. Birds are considered the natural reservoir for WNV since high levels of virus circulate in their bloodstream. Mosquitos acquire WNV in blood meals from infected birds and pass it on to other birds, animals, and people. Mosquitos that feed on an infected horse or human have not demonstrated the ability to ingest enough of the virus to transmit it to other animals or humans; therefore, horses and humans are considered “dead end hosts.”

West Nile Virus may cause a wide range of clinical illness ranging from mild “flu-like” signs to encephalitis (inflammation of the brain) that may be fatal to both humans and horses. While horses are susceptible to WNV infection, many infected horses do not develop clinical illness and recover uneventfully. WNV vaccination is considered a core vaccination by the American Association of Equine Practitioners and an essential standard of care for all horses in North America.
Rabbit Hemorrhagic Disease Update - January 2021

By: Dr. Andrea Mikolon, DVM, MPVM, PhD

Rabbit Hemorrhagic Disease Continues to affect southern California:

Rabbit Hemorrhagic Disease Virus serotype 2 (RHDV2) is a serious and extremely contagious viral disease of rabbits. Morbidity and mortality rates are high in unvaccinated animals; in some groups of infected rabbits, most or all may die. The disease has been known to cause dramatic declines in some wild rabbit populations. RHDV2 has previously caused domestic rabbit outbreaks in Washington state, Ohio, and New York. Since at least March 2020, a genetically distinct strain of RHDV2 has been spreading in wild and domestic rabbits in the American southwest, resulting in widespread morbidity and mortality. A concurrent outbreak of RHDV2 in wild and domestic rabbits in northern Mexico, affecting nine (9) states, is likely related. In addition, RHDV2 was reported in January 2021 to have spread to domestic rabbits in Florida.

In California, RHDV2 has been confirmed in domestic rabbits at four (4) properties in Riverside County, three (3) properties in Kern County, one (1) property in Los Angeles County, and four (4) properties in San Bernardino County.

### Rabbit Hemorrhagic Disease Detections in Domestic Rabbits in California 2020-2021 (As of 01/06/21):

<table>
<thead>
<tr>
<th>County</th>
<th>Properties</th>
<th>Month Confirmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Bernardino</td>
<td>4</td>
<td>July and September 2020, January 2021</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>1</td>
<td>November 2020</td>
</tr>
<tr>
<td>Riverside</td>
<td>4</td>
<td>November 2020 through January 2021</td>
</tr>
<tr>
<td>Kern</td>
<td>3</td>
<td>December 2020</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>12</strong></td>
<td></td>
</tr>
</tbody>
</table>

The disease has been detected in wild rabbits in eight (8) southwestern states including Arizona, California, Colorado, Nevada, New Mexico, Texas, Utah, and Wyoming. It has been detected in wild cottontails and jackrabbits in six (6) Southern California counties. CDFA considers the disease endemic to these areas, triggering limited regulatory action when domestic rabbits become infected.

### Rabbit Hemorrhagic Disease in Wild Rabbits in California 2020-2021 (As of 01/06/21):

<table>
<thead>
<tr>
<th>County</th>
<th>Affected species</th>
<th>Month Confirmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riverside</td>
<td>Black-tailed Jackrabbit</td>
<td>May 2020</td>
</tr>
<tr>
<td>San Bernardino</td>
<td>Desert Cottontail and Black-tailed Jackrabbit</td>
<td>June and August 2020</td>
</tr>
<tr>
<td>San Diego</td>
<td>Desert Cottontail</td>
<td>June 2020</td>
</tr>
<tr>
<td>Orange</td>
<td>Desert Cottontail</td>
<td>June 2020</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>Desert Cottontail</td>
<td>July 2020</td>
</tr>
<tr>
<td>Kern</td>
<td>Desert Cottontail and Black-tailed Jackrabbit</td>
<td>November and December 2020</td>
</tr>
</tbody>
</table>

CDFA continues to focus on assisting rabbit owners to protect their animals rather than eliminating the disease from the State. Test-positive domestic rabbits are placed under quarantine and owners are provided information on how best to reduce spread of the virus. Restrictions on rabbits moving into California are also in affect.

Rabbit owners are urged to protect their animals by preventing contact with wild rabbits and, if possible, keeping domestic rabbits indoors in areas with known disease. They are also asked to practice biosecurity to prevent accidentally spreading the RHDV2 virus to their rabbits. It should be noted that that apparently healthy rabbits can spread the disease, so rabbit owners should avoid direct or indirect contact between their animals and other rabbits.

There is no licensed RHDV2 vaccine approved for use in the United States; however, CDFA is allowing California licensed veterinarians to import European vaccine to protect against RHDV2. Veterinarians may send an email to AHBFeedback@cdfa.ca.gov to receive an approval letter and instructions on how to apply for a USDA import permit. To date, twenty five (25) California veterinarians have been approved by CDFA to apply to USDA for a permit to import RHDV2 vaccine.
Animal Health Branch Newsletter

Animal Care Program
By: Dr. Liz Cox, MS, DVM

Animal Care is the newest Branch in CDFA's Animal Health and Food Safety Services Division formed to implement and enforce Proposition 12 (passed in 2018). Also known as the Farm Animal Cruelty Initiative, Proposition 12 sets minimum confinement standards for egg-laying hens, veal calves and breeding pigs raised in California and if products from these animals; eggs, veal meat and pork meat, are sold in California. Animal Care is highly committed to working with California farmers, allied industry and stakeholders to ensure animal agriculture in California meets all requirements and to support a fair marketplace for California consumers to have confidence in their food purchases.

On January 1, 2020 housing standards for egg-laying hens and veal calves went into effect requiring shell eggs and liquid eggs to come from hens housed with a minimum of 144 square inches per bird and calves raised for veal raised with a minimum of fourty three (43) square feet per calf. Dairy replacement heifers and dairy steers raised for the purposes of finishing and harvest at 1,200 pounds are not included under the definition of a calf in Proposition 12. Veal calves requiring fourty three (43) square feet are calves raised under specific nutritional conditions for the purpose of marketing as veal to restaurants and retailers. In 2022, the second deadline of Proposition 12 goes into effect for egg-laying hens to be housed cage-free and breeding pigs housed in a minimum of twenty four (24) square feet per pig.

Formal rulemaking for Proposition 12 regulations will begin in early 2021 and we encourage all stakeholders to review and submit comments during the 45-day comment period. Veterinarians will have important roles advising their clients on housing construction, modification of current facilities, updating herd health protocols, employee training, stockmanship review, and serving as second-party auditors of confinement conditions.

Questions about Prop 12? Visit our website http://www.cdfa.ca.gov/AHFSS/Prop12.html or email: AnimalCare@cdfa.ca.gov

AUS and CAHFS Collaborative Antibiogram Project
By: Dr. Edie Marshall, DVM

CDFA's Antimicrobial Use and Stewardship (AUS) Branch, along with the California Animal Health & Food Safety Laboratory (CAHFS) are exploring the development of an exciting new antibiogram project that aims to provide an important service in the future to California livestock producers and veterinarians. Antibiograms, which are summaries of bacterial antibiotic susceptibility test results, provide practitioners with important information on local antimicrobial resistance patterns within herds or flocks of livestock. Currently, AUS and CAHFS are in the preliminary stages of antibiogram development, seeking feedback from an expert focus group of veterinarians, epidemiologists, and academics on the design and content of antibiograms anticipated to assist veterinary clinicians in making informed antimicrobial decisions in their practice. Once this stage is complete, the team will create the newly designed antibiograms and develop a continuing education webinar to educate Californian veterinarians on the utility and format of the new antibiograms. For further information or questions regarding this new collaboration, please contact AUS at CDFA_AUS@cdfa.ca.gov.
Dr. Anita Varga joined the CDFA’s Animal Health Branch headquarters office in November 2020 as a Veterinary Specialist - Bovine. Dr. Varga was born and raised in Germany and developed a passion for livestock animals early in her life. She graduated in 2005 from the University of Veterinary Medicine Hannover, Germany. After graduation she pursued and Internship and Residency in Livestock Medicine and Surgery at The Ohio State University, Columbus OH. She completed her last year of her residency at the Livestock and Medicine section at the School of Veterinary Medicine, UC Davis. After her residency she joined the livestock service at the Royal Veterinary College in London, UK as a clinical instructor until she accepted a position as a feedlot veterinarian in Alberta, Canada. In 2011 Dr. Varga moved back to California and worked as a clinical instructor at the UCD Livestock Medicine and Surgery Service teaching veterinary students and residents in the class room and clinical setting. Dr. Varga opened her own mobile ambulatory livestock practice after four (4) years of working for the School of Veterinary Medicine. Her desire to increase public awareness of livestock related issues and to be able to work with leaders of the industry and to ensure a healthy and safe food supply for the people of California, led her to become part of the CDFA team.

Dr. Varga is board certified by the American College of Veterinary Internal Medicine – Large Animal and received a Masters in Animal Science by The Ohio State University.

Dr. Varga’s passion for animals extends into her private life. Besides enjoying the company of her four (4) dogs, she is breeding Nigerian Dwarfs goats and has a variety of large animals including, Babydoll sheep, Watusi cows, horses, donkey and a camel. She also enjoys going with her almost three (3) year old daughter and eight (8) year old son to the ocean.

Dr. Gustavo Soberano joined CDFA late February of 2020 and served as the Veterinary Specialist for the stewardship unit of the Antimicrobial Use and Stewardship program, before joining the emergency programs as a Veterinarian Supervisor in December of 2020. Dr. Soberano obtained his DVM from the University of California Davis (UCD) in 2003, and later a Masters in Preventive Veterinary Medicine from the same institution. He is also a board-certified Diplomate of the American College of Veterinary Preventive Medicine (ACVPM). Dr. Soberano was in private practice in California for several years, where in addition to practicing veterinary medicine, he also consulted with Non for-profit organizations (NGOs) supporting women cattle cooperatives in Central America and traveled numerous times to work with these groups. In 2013, he joined USDA where he served in multiple positions including public health veterinarian, field veterinary medical officer, state liaison, emergency coordinator and as Director for Southern border ports for USDA APHIS Veterinary Services.

During his tenure with USDA Dr. Soberano participated in multiple animal emergency events and he joined one of the Veterinary Services National Incident Management Teams (IMT) and served as the Operations Section Chief supporting multiple emergency incidents including, Avian Influenza, Cattle Fever, vND, and the Camp Fires event in Butte County in 2018 among others. He also assisted with the 2020 fires in Northern California as part of the EPRS/CARES program.

Dr. Soberano live in Sacramento with his wife and in his free time he enjoys hiking, traveling and exploring new cultures and their food.
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