

## Mission Statement

The Animal Health Branch is California's organized, professional veterinary medical unit that protects livestock populations, consumers, and the State's economy from catastrophic animal diseases and other health or agricultural problems.

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CALIFORNIA DEPARTMENT OF  
FOOD & AGRICULTURE

# Animal Health Branch Newsletter

Volume 41

October 2018

The California Department of Food and Agriculture (CDFA) Animal Health Branch (AHB) has been kept busy with one of its primary missions - to investigate, control and eliminate incursions or outbreaks of emerging and foreign animal diseases that impact animal agriculture. The Branch has been working with its State and Federal partners in ongoing responses to three disease outbreaks.

## Emergency Response to Virulent Newcastle Disease Continues in Southern California

By Anita Edmondson, BVMS, MPVM, MRCVS

Virulent Newcastle disease (vND), formerly known as exotic Newcastle disease, is a serious, highly contagious viral disease that can affect poultry and other birds. In May 2018, a backyard exhibition bird owner brought four (4) sick birds to a specialty animal hospital in Los Angeles County, California for treatment. All four (4) birds displayed dyspnea, lethargy and inappetence, and died at the clinic. The small animal practitioner submitted tracheal swabs and serum samples to the California Animal Health and Food Safety (CAHFS) laboratory, Davis, and bird carcasses to the CAHFS laboratory, San Bernardino. Necropsies revealed lesions consistent with vND, and the samples tested presumptive positive for vND virus by PCR. The laboratory sent samples to the National Veterinary Services Laboratories, where vND was confirmed, and CDFA and USDA issued press releases to notify the public.

CDFA and USDA-APHIS personnel initiated an incident command response, setting up an incident command post (ICP) at the AHB Ontario District office. The bird owner's residence was visited, quarantined, and additional pet birds sampled. The veterinary clinic that diagnosed the affected birds was cleaned and disinfected; potentially exposed birds from that clinic were sampled. None of these birds tested positive. A control area was established around the premises associated with the index cases for targeted surveillance and outreach, including to feed stores and backyard exhibition bird premises.

Calls reporting high mortality in backyard birds in San Bernardino, Los Angeles, Riverside, and Ventura County were soon being received at the ICP. Through active surveillance, sick bird calls, outreach, and epidemiological investigation, incident personnel continued to identify infected, exposed and contact premises. To date, 681 State and Federal individuals have been deployed to respond to this incident, with an average of 160 personnel on-site each day.

As of September 28, 2018, there have been 160 vND infected premises identified, 40,000 birds have been

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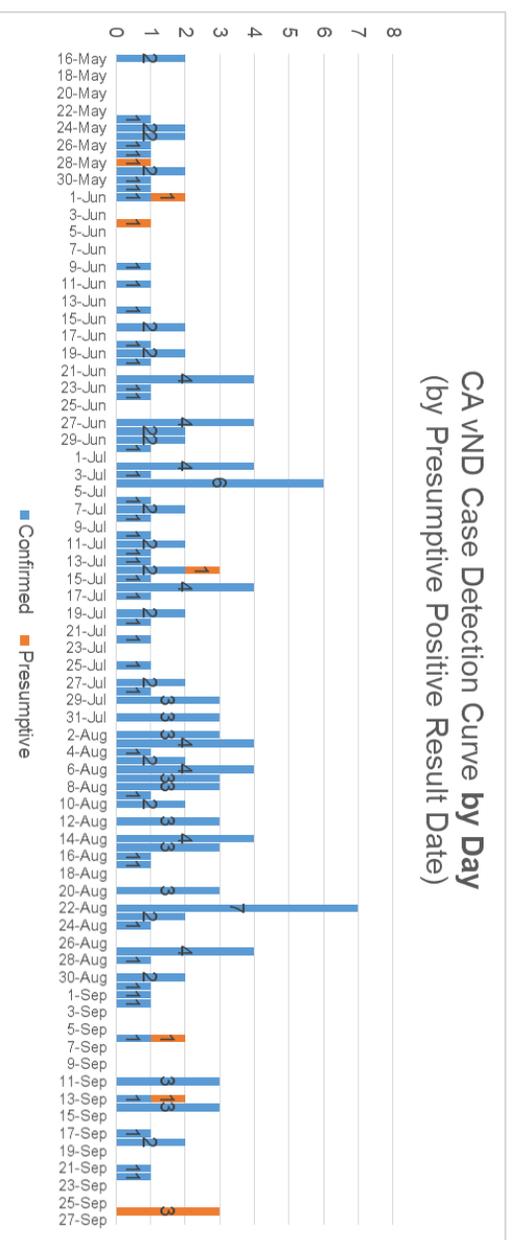
## Emergency Response to Virulent Newcastle Disease Continues in Southern California (continued)

euthanized, and personnel have made over 106,000 premises visits. Several control areas have been established around infected premises; some of those areas have been released after adequate surveillance testing. No commercial premises are currently involved.

Private veterinarians are critical in detecting foreign animal diseases, such as VND, that can have severe effects on the health and welfare of our animal populations, and catastrophic economic losses to the US.

VND is not a food safety concern – properly cooked meat and eggs are safe to eat. In rare cases, people in close contact with affected birds can get mild symptoms.

For more information: [https://www.cdffa.ca.gov/ah/htss/Animal\\_Health/Newcastle\\_Disease\\_Info.html](https://www.cdffa.ca.gov/ah/htss/Animal_Health/Newcastle_Disease_Info.html)



## Low Pathogenicity Avian Influenza Detected in Stanislaus County

By Alyssa Louie, DVM, MPVM

Avian influenza viruses are highly contagious viruses widespread in wild and domestic birds, classified as either low or high pathogenicity based on the ability to cause severe disease in poultry. Although low pathogenicity avian influenza (LPAI) tends to cause only mild disease in poultry, H5/H7 types can develop into highly pathogenic avian influenza when circulating in flocks, and is a reportable disease of concern to California’s poultry industry and international trade partners.

On September 4, 2018, the veterinarian for an organic commercial turkey flock in Stanislaus County noted a slight increase in mortality and some respiratory signs in birds, and submitted samples to the California Animal Health and Food Safety Laboratory. The samples tested presumptive positive for H7 avian influenza on September 6, 2018, and were confirmed as North American wild bird lineage H7N3 by the National Veterinary Services Laboratory on September 11, 2018. The CDFA, USDA-APHIS, and the affected company initiated an immediate response, including quarantine of the flock to stop movement

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## Low Pathogenicity Avian Influenza Detected in Stanislaus County (continued)

and disease spread, establishment of a 10-kilometer surveillance zone, and testing of poultry flocks within the area to detect any additional disease.

Surveillance within the 10-km zone detected three (3) additional H7N3 positives: a commercial turkey facility (confirmed on September 14, 2018), an organic mixed poultry non-commercial operation (confirmed on September 20, 2018), and an organic commercial turkey flock (confirmed on September 21, 2018). These flocks were not experiencing clinical signs. Sequencing of the virus segments showed these three infections were similar to the first affected premises.



The first three (3) affected flocks were euthanized and disposed to eliminate virus and control disease. A plan for the fourth affected flock is being evaluated to determine the most appropriate way to stop further spread.

While avian influenza has zoonotic potential, this form of LPAI has not had any negative human health impacts and does not affect the safety of food. Outreach efforts have encouraged poultry owners to enhance biosecurity of their flocks, as it is the season for natural, asymptomatic carriers of avian influenza virus – waterfowl – to migrate over California. For more information: [https://www.cdfa.ca.gov/ahfss/Animal\\_Health/Avian\\_Influenza.html](https://www.cdfa.ca.gov/ahfss/Animal_Health/Avian_Influenza.html)

## Swine Pseudorabies Virus (PRV) Incident

By Kent Fowler, DVM; Randy Anderson, DVM, MPVM

Pseudorabies is disease caused by a virus that primarily affects swine, but can be transmitted from pigs to cattle, sheep, goats, dogs, cats, and wild animals. It is also known as Aujeszky's disease and "mad itch". The disease is not related to rabies – the term pseudorabies was coined because the disease may resemble rabies. Pigs are the only known natural reservoirs for the virus. The virus can produce latent, or clinically inapparent infections. Therefore, pigs showing no signs of disease may be capable of transmitting the virus. Transmission occurs by nose to nose contact between pigs because virus is present in the nasal and oral discharges of infected pigs. Transmission may also occur by contact with infected feral swine.



A California swine herd was identified as PRV-positive following investigation of a positive sample detected on routine slaughter surveillance at a federally inspected slaughter plant located in Fresno, California on July 17, 2018.

One of three (3) sows slaughtered that day tested positive for PRV. Identification of animals sampled from that plant is poor, and only one of the three (3) sows had identification. This was insufficient to trace the sow to a herd of origin, but follow-up investigation by field CDFAAHB and USDA-APHIS personnel determined that the sows in question were marketed to the slaughter plant by a local livestock broker who fills swine orders for many clients. The investigation of the positive PRV sow led to a swine operation in Tuolumne County. The same owner also has a swine operation in San Benito County, where there was known commingling with feral swine. Breeding age swine had previously moved from the San Benito herd to the Tuolumne herd.

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## Swine Pseudorabies Virus (PRV) Incident (continued)

The owner stated there were no clinical signs of any disease in either herd. Both herds were quarantined, and breeding age pigs were tested for PRV at the California Animal Health Food Safety Lab. In the Tuolumne County herd, 19/21 pigs were PRV positive on ELISA; in the San Benito County herd, 8/8 pigs were PRV positive. Follow-up testing at the National Veterinary Services Laboratory confirmed all samples on a differential ELISA. Both herds are distant from any commercial herds.

CDFA and USDA staff continue to work with the owners on herd plans at both locations.

## Equine Health Program Updates

By Katie Flynn, BVMS, MRCVS

### West Nile Update

For 2018, a total of eight (8) horses have been confirmed positive for West Nile Virus (WNV). The positive horses were located in Amador, Kern, Modesto, Placer, Sacramento (2), Shasta and Stanislaus counties. Five (5) horses were unvaccinated, one (1) horse had an unknown vaccine history, and two (2) horses were vaccinated. Four (4) horses died or were euthanized and four (4) horses are alive.

CDFA continually monitors and investigates equine neurologic cases for the presence of WNV in California. CDFA urges horse owners to consult their veterinarian concerning a WNV vaccination program to ensure maximum protection of their horses. For more information visit [https://www.cdfa.ca.gov/ahfss/animal\\_health/wnv\\_info.html](https://www.cdfa.ca.gov/ahfss/animal_health/wnv_info.html)

### Equine Euthanasia and Disposal Issue

Equine euthanasia and disposal has become a challenge for the equine industry across the country. Specifically, due to the recent changes in FDA policies which restrict the use of animals euthanized with a chemical substance in animal foods. Furthermore, there is currently no set tolerance for pentobarbital, the most common equine euthanasia solution, in pet food. Any detection of barbiturates in rendered product results in an adulterated product. Thus, it is the responsibility of the renderer to take appropriate steps to ensure that the product does not contain pentobarbital. Based on the zero tolerance for pentobarbital, renderers across the country are challenged in accepting horse carcasses without knowledge of method of euthanasia.

Equine practitioners rely on the use of pentobarbital for a reliable, consistent, client-friendly method of euthanasia. The elimination of rendering options for these carcasses is challenging the practitioner. Additionally, practitioners must consider use of less client-friendly or less researched chemical modalities that have the potential to be prohibited by FDA in the future. Recently the California Department of Food and Agriculture facilitated a conference call with academia, California Veterinary Medical Association, equine practitioners, and California renderers to discuss this topic. The action items from the call are summarized below:

- Communicate with FDA regarding the zero-tolerance level and the science used to determine such policy. Recommend development of a tolerance level for euthanasia and anesthetic agents in carcasses.
- Develop a methodology for practitioners to identify carcasses euthanized with barbiturates and a form for practitioners to complete for submission to renderer acknowledging method of euthanasia.

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## Equine Health Program Updates (continued)

- Determine an estimate of the number of horses euthanized in California annually and geographic distribution.
  - Communicate with pharmaceutical companies to determine if they are aware of the current issue related to feed, if they are working on tolerance or safe levels in feed with FDA, or working on alternatives for equine practitioners for euthanasia.
- Comments or thoughts regarding this subject can be emailed to [kflynn@cdfa.ca.gov](mailto:kflynn@cdfa.ca.gov) for forwarding to the working group. Future updates on this issue will be provided in future newsletters.

## Animal Quarantine Laws Strengthened

By Katie Flynn, BVMS, MRCVS

On September 6, 2018, the Governor signed AB 3252 which strengthens the animal quarantine laws. Approved legislation revises the existing law that makes any person who negligently or intentionally violates any state or federal law or regulation, including any quarantine regulation, by importing any pest infested or disease-infected animal (infected animal) or other article and causing further infestation or infection, or causing an infestation to spread beyond any quarantine boundaries, civilly liable in a sum not to exceed \$25,000 to instead impose civil liability for moving, in-state or imported into the state, an infected animal that infects other farm animals. For more information on the approved legislation visit [http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201720180AB3252](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB3252)

## African Swine Fever (ASF) and Classical Swine Fever (CSF) Increasing Concern for U.S. Pork Producers

By Hector Webster, DMV, MS

There has been a recent rise in the incidence of African Swine Fever (ASF) and Classical Swine Fever (CSF) throughout the world. In August, China reported an outbreak of ASF, and Japan recently reported a case of CSF. This continuous global increase is of rising concern for U.S. pork producers.

### ASF Announcement

*On August 3, 2018, Chinese government officials announced the nation's first case of ASF in a northeastern province, creating a global concern that could have significant implications to the swine industry all over the world. The genome sequence of the Chinese virus is very similar to the virus found in Georgia, Russia and Europe. The current outbreak has already grown during the month of September as officially the World Organization of Animal Health, Office of International Epizootics (OIE) WAHIS platform reports 19 outbreaks in six provinces. The outbreak farms are in pig-dense areas, and some positive pigs were transported through additional pig-dense areas.*

### CSF Announcement:

*On September 9, 2018, Japanese government officials reported the occurrence of CSF, 26 years after the last outbreak, in a*

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## African Swine Fever (ASF) and Classical Swine Fever (CSF) Increasing Concern for U.S. Pork Producers (continued)

*farm located in the central area of the country. A week before, one pig died suddenly followed by the mortality of 80 others and depopulation of the animals on the farm was completed on September 10, 2018. The occurrence of CSF in Japan is totally unrelated to the epidemic of ASF in China. To date, Japanese government officials have ruled out the occurrence of ASF in this outbreak or in the country.*

The [ASF](#) and [CSF](#) viruses produce similar clinical signs and impact on swine health but are caused by different viruses with distinct characteristics. These viruses are not known to have any impact on public health. ASF has never been detected in the US. CSF was eradicated from the US in 1978.

Both ASF and CSF can be spread through direct contact with infected pigs, feces, genetic material or body fluids, indirect contact via fomites such as equipment, vehicles or people who work with animals between pig farms with poor biosecurity measures.

Both diseases can occur in acute, chronic and mild forms. The acute form can cause disease from which most of affected pigs die. The clinical signs of CSF are very similar to ASF but clinically CSF is usually considered less severe than ASF. Both swine fever diseases can only be differentiated by diagnostic tests and affect domestic as well as wild (feral) swine.

Signs of ASF. Symptoms can be variable but often include:

- High fever, decreased appetite and weakness.
- Reddened, blotchy, skin or have blackened lesions.
- Diarrhea, vomiting, coughing and difficulty breathing.
- Abortions can occur in pregnant sows.
- Death usually occurs seven (7) to ten (10) days after signs of disease are seen.
- Sudden death, without any signs of illness, is possible in newly exposed herds.
- Animals that recover from the illness can be carriers of the virus for several months.

Signs of CSF. Severity of symptoms vary with the strain of the virus introduced. Disease can range from mild to severe. Infected pigs may have:

- High fever (105-107° F)
- Huddle and stop eating
- Intermittent constipation followed by diarrhea
- Conjunctivitis (reddened eyes)
- Raised, reddened spots on the skin (hemorrhages)
- Purple discoloration of the ears, abdomen or inner thighs
- Young pigs may have incoordination, weakness and convulsions

### Reporting

ASF and CSF are emergency conditions that must be reported within 24 hours of discovery. The 2018 CDFA List of Reportable Conditions can be accessed on our website:

Poster: [https://www.cdfa.ca.gov/AHFSS/Animal\\_Health/pdfs/CA\\_Reportable\\_Disease\\_List\\_Poster.pdf](https://www.cdfa.ca.gov/AHFSS/Animal_Health/pdfs/CA_Reportable_Disease_List_Poster.pdf)

Two-pager: [https://www.cdfa.ca.gov/AHFSS/Animal\\_Health/pdfs/CA\\_Reportable\\_Disease\\_List\\_2pg.pdf](https://www.cdfa.ca.gov/AHFSS/Animal_Health/pdfs/CA_Reportable_Disease_List_2pg.pdf)

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## African Swine Fever (ASF) and Classical Swine Fever (CSF) Increasing Concern for U.S. Pork Producers (continued)

### Biosecurity

CDFA recommends the practice of [standard biosecurity measures](#), such as

- Cleaning and disinfecting clothing, equipment, and vehicles entering and leaving the farm,
- Never allow human food brought onsite to enter animal areas,
- International food products pose an increased risk and should not be allowed on the farm,
- Maintain an effective rodent and tick control program, and
- Fence property to prevent wild pigs from encountering domestic pigs.

Prevention is the best practice since there is no treatment for CSF or ASF other than supportive care. CSF vaccines are available, require USDA approval for use, and can be used to assist in outbreak response efforts. Currently, there is no vaccine that protects against ASF.

## Outreach: Regulatory Instruction to Veterinary Students

By Katie Flynn, BVMS, MRCVS



On September 10-11, 2018, 11th California Department of Food and Agriculture Animal Health Branch veterinarians collaborated with USDA Veterinary Services veterinarians and Western University College of Veterinary Medicine faculty for a 2-day session instructing junior veterinary students. Veterinary students were tasked with delivering presentations covering a variety of domestic and international diseases, along with animal movement scenarios. Following the student presentations, students were then split into groups for a wet lab where they rotated through three stations that covered tuberculosis testing, brucellosis vaccinating and testing, animal disease traceability, and official identification and proper completion of certificates of veterinary inspection.

### Attention – Equine Veterinarians

#### **New 6 Month Equine CVI available January 2019**

Beginning on January 1, 2019, GlobalVetLINK (GVL®) will offer a new Extended Equine Certificate of Veterinary Inspection (EECVI) digital solution. This new CVI will meet the California equine entry requirements and WILL BE accepted for movement of California origin horses. The new system will require the private practitioner to obtain the EECVI and the owner to obtain a movement permit through the online system for each movement. Those transporting the horses will be required to carry the movement permit and the valid Coggins documents when traveling, as these documents will be reviewed by the California Border Crossing stations personnel upon entry to California. For more information on the system visit

<https://www.globalvetlink.com/products/digital-equine-6-month-passport/>

## Spotlight on California Department of Fish and Wildlife and Preventing Chronic Wasting Disease

For Full Article:

<https://www.wildlife.ca.gov/Science-Institute/News/science-spotlight-the-fight-to-keep-chronic-wasting-disease-out-of-california>

California Department of Fish and Wildlife (CDFW) scientists, wildlife officers and other staff are pulling out all the stops to fight a wildlife disease of major concern from crossing state lines and infecting native deer and elk populations.

Chronic Wasting Disease (CWD) is a contagious, always-fatal neurological disease that affects cervids (deer, elk and moose). In North America, the disease is currently found in captive and wild cervid populations in 24 U.S. states and two (2) Canadian provinces. It has been detected in captive elk and sika deer in South Korea and free-ranging reindeer, moose, and red deer in Norway and Finland.

The disease has not been detected in California, but the threat of introduction is still very real. Once established, CWD is difficult to fight, and the infectious agent, prions, can persist in the environment for years. CWD is also difficult to detect, in part because the outward signs often do not manifest until several years after initial infection. Currently, there is no effective live-animal test and there is no vaccine. Systematic testing of hunter-harvested deer is one of the most widely used surveillance methods available. Additionally, it is one important method to help ensure the disease has not entered the state and will help ensure CDFW can detect CWD early should it ever reach California. Early detection of CWD is the first and most important step to effective management of this disease.

For California, this means two (2) things: continuing to enforce strict cervid (animals and parts) importation and movement regulations, and ramping up disease surveillance efforts. This deer season, CDFW will be setting up voluntary check stations for deer hunters throughout California. Here trained staff will collect lymph nodes from the neck of harvested deer – a process that takes only minutes and is minimally invasive to the surrounding tissue. While waiting, hunters can get their tags validated and learn more about how to help prevent the introduction of CWD to California.



CDFW has established a Chronic Wasting Disease Task Force to lead efforts preventing the spread of CWD to this state. Members include CDFW staff (biologists, veterinarians, communications officers and wardens), Fish and Game Commission employees and California Animal Health and Food Safety veterinarians. The task force is reaching out to the public and other local, state, and federal agencies to help with surveillance efforts, educating sportsmen about how they can do their part to prevent the spread of CWD and preparing a comprehensive management plan to allow for rapid response if the disease ever does make it to California.

You can find background information, resources and updates on California's efforts to fight CWD at [www.wildlife.ca.gov/CWD](http://www.wildlife.ca.gov/CWD).

To find a CDFW check station to get your deer or elk checked, please visit [www.wildlife.ca.gov/CWD](http://www.wildlife.ca.gov/CWD) or call (916) 358-2790.



## Staff Biographies



Robert Lalum has a B.S in Animal Science and over ten (10) years of experience working in the private sector as a Research Scientist. His experience includes food safety research, microbiology, and emergency programs/management. Robert's most recent employment was working as a Senior Environmental Scientist with the California Department of Food and Agriculture Milk and Dairy Food Safety Branch. Robert will be working in the Animal Health Branch Emergency Programs Unit on projects such as the Secure Food Supply and emergency preparedness exercises and training. His home is in Sacramento but will also be traveling throughout California to support Animal Health Branch activities. Robert looks forward to working in the AHB and is eager to incorporate his skills as a member of CDFA.

Dr. Elise Chad grew up in a small town in the Central Valley of California where she was heavily involved in 4-H showing chickens, pigs and horses. She received her Bachelor's in Biology from Amherst College in Massachusetts before returning to California. She studied Animal Science and fell in love with ruminant nutrition while at Fresno State where she obtained a Master's in Animal Science. After graduating from UC Davis School of Veterinary Medicine she practiced Small Animal Medicine but always retained her interest in livestock and poultry. She enjoys cooking, movies and travel in her free time. She started with Sacramento AHB in September 2018 as an Agricultural Technician and is currently assisting with health certificates.



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