Message from the State Veterinarian
Dr. Brian Joseph

Washington State Veterinarian Dr. Brian Joseph returned to his duties at WSDA last month after an overseas deployment to western Afghanistan with the Army Reserve Veterinarian Corps. Assistant State Veterinarian Dr. Amber Itle served as our acting state vet in his absence. She has likewise returned to her regular work.

Dr. Joseph was deployed in February with a team of U.S. Army veterinary technicians and veterinary food inspectors from the 149th Medical Detachment Veterinary Services. The team was supporting the ongoing NATO mission Operation Freedom’s Sentinel.

His team was responsible for providing clinical and veterinary medical care for the military and contract working dogs serving NATO nations and the U.S. Air Force, Army and Navy in the western half of Afghanistan.

They also provided tactical canine casualty care training to Army Blackhawk MEDEVAC crews, U.S. military medical personnel in forward and combat operating bases and at the NATO Role 3 MMU hospital staffed by U.S. Navy medical personnel.

CONTINUED ON PAGE 2
The team worked closely with the animal vector control team at Kandahar Air Field and the forward operating and combat operating bases. This work focused on mitigating the danger of rabies infection that could result from bites and scratches inflicted upon military and civilian personnel by feral dogs and cats, coordinating appropriate testing to determine rabies exposure and providing ticks from captured golden jackals and hedgehogs to the U.S. Army Public Health Command Europe. The veterinary food technicians performed daily inspections of incoming food to ensure quality and safety. The team also assisted the Preventive Medicine detachment in the training of many other soldiers concerning the dangers of zoonotic disease and vectors.

In addition, the team toured the Trauma Center twice a week with Edan, a retired explosives ordnance dog, to raise the spirits of the trauma team members. The deployment was filled with exciting, memorable experiences and provided the opportunity to work with professionals from many nations committed to making Afghanistan a safer place for its citizens.

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Message from the State Veterinarian, continued from page 1

POULTRY

New Avian Pathologist at WADDL-AHFSL in Puyallup

My name is Laura Chen, and I am the new branch chief at the Avian Health and Food Safety Laboratory (WADDL-AHFSL) in Puyallup, Washington. I am joining WADDL-AHFSL after spending the past 8 years in North Carolina, where I finished my veterinary degree and advanced training in poultry medicine and pathology. I thoroughly enjoyed my time in the Southeast, but I am definitely excited about the cooler weather of the Pacific Northwest! Prior to North Carolina, I completed my undergraduate degree in Animal Science at Rutgers University in New Jersey. I am looking forward to getting to know the small backyard flock owners, regional producers, and food industry here in Washington. Outside of work, I am looking forward to checking out the regional hiking and rock climbing. I currently share my home with my husband, Mark, and my cat, Maureen.

Contact me at:
Avian Health and Food Safety Laboratory
2607 W Pioneer Ave, Puyallup, WA 98371-4900
Email: WADDLAHL@vetmed.wsu.edu
Phone: 253-445-4537
www.vetmed.wsu.edu

POULTRY

The Poultry Institute Returns to Roost November 6, 2019

Dr. Dana Dobbs

With the much-anticipated arrival of Dr. Laura Chen at the WSU's Avian Health Food Safety Laboratory (AHFSL) in Puyallup, we are pleased to announce the revival of the Poultry Institute. As before, the event will be hosted at the WSU Puyallup Research and Extension Center and will cover a variety of interesting poultry topics and hands-on activities. Producers, backyard poultry owners, veterinarians, veterinary technicians, and regulatory officials are highly encouraged to attend. As an extra bonus, WSDA will be providing light refreshments in the morning and lunch will be hosted by WADDL/AHFSL. For more details and registration information, please go to https://waddl.vetmed.wsu.edu/avian/poultry-institute/2019.

We hope to see you there.
# Washington Reportable Disease Stats

## SEPTEMBER 2019

<table>
<thead>
<tr>
<th>DISEASE REPORTED</th>
<th>ANIMAL</th>
<th>NUMBER</th>
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<tr>
<td>Brucellosis (<em>Brucella canis</em>)</td>
<td>Canine</td>
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<tr>
<td>Epizootic haemorrhagic disease</td>
<td>Bovine (cow)</td>
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<tr>
<td>Equine influenza</td>
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<tr>
<td>Leptospirosis</td>
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<tr>
<td>Lyme Disease (<em>Borrelia burgdoferi</em>)</td>
<td>Canine (dog)</td>
<td>1</td>
</tr>
<tr>
<td>Pigeon Fever (<em>Corynebacterium pseudotuberculosis</em>)</td>
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</tr>
<tr>
<td>West Nile Virus</td>
<td>Equine (horse)</td>
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## OCTOBER 2019

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<td>Salmonellosis</td>
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<tr>
<td>West Nile Virus</td>
<td>Equine (horse)</td>
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Rabbit hemorrhagic disease (RHD), a highly contagious viral disease with high infection and death rates in domestic rabbits, was identified in a pet rabbit from Orcas Island (WA) on July 18, 2019. Since that time, the disease has been confirmed at other sites on Orcas, San Juan, and Lopez islands. In the U.S., RHD is considered a foreign animal disease; only rare, sporadic, and isolated cases have previously been reported in the U.S.

There are significant rabbit populations on many of the San Juan Islands; these populations include both European (wild) and domestic rabbits—the latter include pets, commercial purpose (breeding stock and meat animals), and ferals. Residents of Orcas, San Juan, and Lopez Islands have reported “die offs” of feral rabbits. Larger rabbitries on Orcas Island reported morbidity (sickness) rates of 100% and mortality (death) rates of 30 to 56% during the current outbreak.

In September, WSDA published an emergency rule preventing movement of any domestic or feral domestic rabbit from Lopez, Orcas or San Juan Islands.

Origin of the Disease

The RHD virus was first diagnosed in 1984 in China. It spread widely throughout the world and is well established in some countries. It was introduced and used as a natural population control measure in both New Zealand and Australia, where rabbit numbers were raging unsustainably. Those interested in learning more about the origin and history of RHD are encouraged to read the scientific review by Abrantes et al. (2012).

RHD is similar to the human immunodeficiency virus, feline leukemia virus, and canine parvovirus in that the first appearance of these viruses can be pinpointed (1984, the early 1900s, 1964, and 1978, respectively). Each is believed to have developed by either mutation from a previously-harmless virus or cross-species infection. RHD seems to be the former case, probably developing from non-pathogenic caliciviruses present in wild European rabbits.

There are three forms of the RHD virus. The form identified in the San Juan Island outbreak was RHDV2, believed to infect all ages of domestic rabbits but less deadly than types RHDV and RHDVa.

Signs of Infection

The first sign of infection with RHD is often sudden and unexpected death in previously healthy rabbits. Those that do not die immediately may demonstrate poor appetite, depression, inactivity, and listlessness; they will have a fever and bloody nasal discharge may be noted. Later signs relate to organ failure and include jaundice, respiratory distress, diarrhea, weight loss, bloating, and death.

Caretakers of rabbits affected by but recovering from the virus in the current outbreak on the San Juan Islands observed rabbits did not come to the front of their cages with interest when fed; even those that survived appeared “limp” and inactive at the back of their cage for a day or two before recovering completely.

How the Virus Spreads

The RHD virus is very contagious and easily spread through numerous means:

- Ingestion of contaminated food or water
- Direct contact with infected live or dead rabbits
- Inhalation
- Contact with contaminated equipment, tools, hutches, bedding, etc.
- Viral movement by flies, birds, biting insects, predators, scavengers, and humans
- Contact with urine, manure, and respiratory discharges of infected rabbits
- Ocular (conjunctival) infection via flies, dust, or secretions of infected rabbits
- Contact with feces of predators or scavengers that have eaten infected rabbits

Control and Prevention

Have a hospital area for sick animals situated well away from healthy and quarantined animals. All tools, equipment, water buckets, etc. used in this area should be specific to the area and not used elsewhere; they should be cleaned and disinfected after each sick animal’s case has been resolved. Sick animal chores should be done after those of healthy animals and those in quarantine. Better yet, just one person should be designated to handle sick animals. Ensure wastes (urine, manure, leftover feed) and airflow from the hospital area are prevented from contacting other animals. Because the RHD virus is highly contagious, can be spread by many means, and can be maintained in wild rabbit populations, controlling outbreaks is challenging once the virus is present in an area. The virus can live in flies for as much as nine days, in carcasses for up to three months, and for a few weeks in dried excretions/secretions.

Rabbits surviving infection are believed to shed the virus for at least 30 days, but in experimental cases, they did not shed virus after 105 days. Long term/permanent shedding is unlikely. Exposed and surviving rabbits have immunity to that viral strain for an unknown amount of time.

Vaccines exist for RHDV/RHDVa and RHDV2; there is no cross protection between strains, and annual revaccination is recommended. Because RHD is considered a foreign animal disease, vaccines are only
available in the U.S. through private veterinarians who have applied for and been granted permission by the USDA to purchase and distribute the vaccine.

Strict biosecurity practices are the backbone of prevention. Essential steps include:

- Keep a closed rabbitry
- Exclude wild and feral rabbits and predators from rabbitry
- Wash hands between handling rabbits in different pens or cages
- Clean and disinfect* equipment, tools, footwear, feed and water containers, cages, etc.
- Control flies and biting insects
- Remove brush, grass, weeds, trash, and debris from rabbitry
- Protect feed from contamination by flies, birds, rodents, etc.
- Do not feed grass or other forage that could be contaminated with the virus
- Do not use forage, branches, etc. for bedding
- House rabbits indoors if possible
- Do not share equipment with others who raise rabbits
- Remove and bury or dispose of dead rabbits promptly
- Submit carcasses for examination and sampling promptly
- Contact a veterinarian promptly if sick or dead rabbits are observed
- Do not transport rabbits into or out of RHD quarantine areas
- Quarantine new rabbits or those returning from shows for one month

*Recommended disinfectants include those in the phenol class or 10% bleach.* Clean thoroughly with soap and water first and apply disinfectant for recommended contact time. Rinse well and let dry before allowing animal contact.

References


SMALL ANIMAL

RHD and the Emergency Rule: What's up, Doc?

Dr. Amber Itle

WSDA is authorized under RCW 34.05.350 to issue emergency rules when the agency for good cause finds immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest. Generally, the State Veterinarian will use this authority during a foreign animal disease outbreak. Most recently, an emergency rule was issued to stop the movement of rabbits, rabbit products, and equipment from Orcas, San Juan and Lopez Islands.

In July and August 2019, WSDA received positive diagnosis of Rabbit Hemorrhagic Disease (RHD) in owned and feral domestic rabbits on Orcas and San Juan islands within Washington State. Reports of sick and dead rabbits consistent with RHD were also reported on Lopez Island. RHD is an extremely infectious and almost universally fatal viral disease not endemic to Washington. It is reportable to the OIE (Office International de epizooties, also known as the World Health Organization for Animal Health). Under chapter 16.36 RCW, domestic rabbits are considered livestock.

The establishment of RHD on the Washington State mainland would be costly to the rabbit industry and consumers and emotionally devastating to owners of pet rabbits. Specific concern involves the loss of livelihood for rabbit breeders, loss of companion animals, loss of animals for 4-H participants, and loss of apriinary protein source for individuals raising rabbits for consumption. The RHD virus is very contagious and easily spread through numerous means including direct contact with infected live or dead rabbits and/or contact with contaminated equipment, tools, hutches, and bedding. The Director of Agriculture, pursuant to authority in chapter 16.36 RCW, has determined the containment of RHD on the above islands is necessary to protect domestic rabbits on the Washington mainland and unaffected islands. Find the rule language on the WSDA website.
EQUINE

Vesicular Stomatitis to this point

Dr. Ben Smith

Eight states have been affected by the 2019 vesicular stomatitis (VS) outbreak: Colorado, Kansas, Texas, New Mexico, Nebraska, Utah, Wyoming, and Oklahoma (cleared). Of the 1,131 documented cases, 11 were in cattle and 1,119 were in horses. The cattle cases are the big problem, because symptomatically VS looks like other economically-devastating diseases such as foot and mouth disease.

VS follows the waterways from Mexico via insect vectors. As the weather warms, black flies, sand flies, and other insects move north, carrying the virus to new areas. Movement of infected animals with oral vesicles or erosions can deposit the virus on fomites for indirect transmission to other animals. This is why northern states place restrictions on animal movement and worry during rodeo season. It is also why sometimes VS will seem to take a large jump in distance between affected counties.

Signs of VS include lethargy, fever, long ropey saliva, and erosions/crusts in mouth and lips. Coronary band lesions may also occur. All hooved livestock are at risk. Horses are most often affected; cattle are more resistant but still susceptible. Diagnostic rule outs include foreign bodies (typically foxtail or cheat grass awns), caustic chemicals, and other vesicular diseases (BVD, FMD, etc.).

If oral or coronary band vesicular lesions are noticed in any livestock species, a veterinarian should be contacted immediately. This veterinarian will engage the services of a foreign animal disease diagnostician (FADD), who will be dispatched to investigate the case. Blood and lesion swabs will be sent to a federal FAD laboratory for analysis. If VS is diagnosed, the livestock facility in question will be placed under quarantine for 14 days after the lesions heal. High morbidity and low mortality are typical. Animals usually recover, but neonates can die from anorexia secondary to oral pain.

Private veterinarians should review the signs of VS in case they are called to look at a drooling horse or other livestock. There are many good websites with pictures of typical lesions, and WSDA has information that can be sent upon request. Many states like Washington will put restrictions on interstate travel of animals from affected areas; this is an effort to keep VS from sneaking into more states. Help us keep this disease out of Washington!

Current stats as of 10/23/19

- Confirmed in 8 states in 2 months
  - Colorado, Kansas, Nebraska, New Mexico, Oklahoma, Texas, Utah, Wyoming.

- 1,131 VS-affected premises
  - 1,119 premises are equine species
  - 11 premises have affected cattle

- Export
  - Veterinarians must examine animal(s) to issue a CVI
  - Animal(s) must be found free of clinical signs 72 hours prior to shipment date
  - Animal(s) must not exposed to a VS-affected animal or VS-quarantined premises within the last 14 days.

Map 2. Counties with Premises Quarantined for VSV Since June 21, 2019 (shaded in blue)

From USDA APHIS 2019 Vesicular Stomatitis Virus (VSV) Situation Report – October 23, 2019

Links of Note

Carbapenemase-producing E coli in a veterinary hospital

Guidelines for Judicious Use of Antimicrobials in Livestock and Guidelines for Veterinarians: Judicious Use of Antimicrobial for Livestock (published in July 2018) have been revised. The updated documents may also be found on the Stewardship page of the CDFA AUS website.

Critical updates to the Task Chart for Technicians, Assistants, and Medication Clerks:
Download the Task Chart
(WSVMA member login required)
Case study from the State Veterinarian's Office  

Dr. Amber Itle  

What should you do if you see unusual lesions or clinical signs on a farm call? The following scenario is based on a real case that occurred in Washington in recent weeks. This case will help you better understand regulatory processes and response from animal health officials when a foreign animal disease is suspected. WSDA veterinarians are foreign animal disease diagnosticians (FADD) trained to recognize, control, contain, and eradicate transboundary disease to ensure rapid economic recovery for producers. Get to know your WSDA field veterinarian today.

Case History  
An accredited veterinarian in Franklin County was out for a routine herd-health check on a 4,000-cow dairy when he was asked to examine a sick first-calf heifer. The heifer had gone off feed and presented with excessive drooling along with mucosal, nasal, and lingual lesions. These lesions are consistent with diseases on the WSDA’s reportable disease list. The practitioner contacted the State Veterinarian’s Office to report the concerning lesions. The state veterinarian, Dr. Brian Joseph, and USDA APHIS veterinarian, Dr. Leonard Eldridge, discussed the case and agreed to send WSDA field veterinarian Dr. Dobbs to investigate. Dr. Dobbs, a FADD, responded immediately to harvest scabs, blood, and mucosal swabs for diagnostic testing. Based on history and clinical signs, the following differentials were considered:

1. Foot and Mouth Disease (foreign animal disease)  
2. Vesicular Stomatitis (foreign animal disease, but large outbreak in the west)  
3. Bovine Viral Diarrhea (BVD) (endemic)  
4. Bluetongue (endemic)  
5. Infectious Bovine Rhinotracheitis (IBR) (endemic)  
6. Malignant Catarrhal Fever (MCF) (endemic)  
7. Trauma, such as mechanical or chemical burn  
8. Photosensitivity  

Although most of the differentials are endemic diseases in Washington, they appear identical to foreign animal diseases such as foot and mouth disease. The challenge is that all these diseases are clinically indistinguishable and require diagnostic tests to differentiate them from each other.

The Investigative Process  
Dr. Dobbs placed a hold order requiring the owner not to move any animals on or off the premises until confirmatory test results were available. The owner confirmed the dairy did not have a history of BVD and the herd was closed. No other cattle appeared to be ill at the time of Dr. Dobbs’ visit.

Dr. Dobbs reported her findings to the state and federal veterinarians, who determined the likelihood of a foreign animal disease was low. Therefore, they directed her to ship the samples to WSU/WADDL to rule out MCF, BVD, and the other viral diseases under consideration. Dr. Dobbs added a test request for bluetongue based on seeing lesions like these in the past.

Second Case Report  
Three days later, a call from a veterinarian in Walla Walla County relayed similar concerns. The veterinarian reported a single cow on the farm was hypersalivating and had muzzle lesions. Dr. Smith, the Eastern Washington field veterinarian, responded to the report, investigated the case, issued a hold order, and submitted samples to WSU/WADDL and the Foreign Animal Disease Diagnostic laboratory on Plum Island.
The Rest of the Story

While results were pending on these cases, there were reports of a significant die-off of deer in the same regions as the affected cattle. WSU/WADDL reported the first bovine case was positive for Epizootic Hemorrhagic Disease, which occasionally affects deer populations in Washington. When the virus gets into midges and gnats, it can be transmitted to livestock, especially near water sources. The case in Walla Walla County was also positive for the disease.

WSDA field veterinarians contacted the private practitioners and owners with the results and removed movement restrictions imposed on those animals.

If you see unusual lesions in your practice, don’t hesitate to report it to Dr. Brian Joseph, State Veterinarian at 360-902-1881, or contact your regional field veterinarian.

Access WSDA’s blog on EHD at: https://wastatedeptag.blogspot.com/2019/09/deadly-deer-disease-diagnosed-in-four.html

Biosecurity Signs Now Available

To request a sign, contact the Animal Health Program at:

Phone: (360) 902-1878
Email: ahealth@agr.wa.gov
Oregon has extended their electronic online application (OVIS) to Washington accredited veterinarians. OVIS is a free online application for creation of electronic certificates of veterinary inspection (eCVIs), brucellosis vaccination, and tuberculous test records. The OVIS system replaces the fillable eCVI PDF.

Get started:

1. **Go online**
   - https://oda.direct/OVIS
   - OVIS supports the following browsers:
     - Chrome
     - Edge
     - Internet Explorer
     - Safari

2. **Create an account**
   - Each accredited veterinarian must create an account for his or her use. The process only takes a few minutes.
     - Veterinarians may create authorized accounts for clinic staff.

3. **Wait for approval**
   - The Washington State Veterinarian’s Office will approve accounts within one to two business days.

4. **Create Authorized Users**
   - Authorized users can use OVIS on the veterinarian’s behalf, but are not allowed to e-sign certificates.

5. **Use the app**
   - Using the app, veterinarians can create:
     - Small and large animal CVIs
     - Brucellosis vaccination records
     - Tuberculosis test records