

# Animal Health News

Veterinary News from the North Dakota State Board of Animal Health

Winter 2016

## Board of Animal Health News

### New Board Members

Governor Jack Dalrymple has appointed two new members to the State Board of Animal Health in the past year.

Ryan Homelvig of New Rockford was appointed in August of 2015 to represent the bison industry.

Kevin Blake of Cando was appointed in January of 2015 to represent the swine industry.

The livestock industry in North Dakota owes much gratitude to Dr. Ken Throlson of New Rockford for his 14 years of service as the previous bison representative on the board, as well as Daryl Dukart of Dunn Center for his 4 ½ years of service as the swine representative on the board.

### Upcoming State Board of Animal Health Meetings

Feb. 10, 2016 - review comments on the Administrative Rule hearing

March 23, 2016 - regular meeting

All meetings held at 9:00 am in the North Dakota Department of Agriculture's 6th floor conference room at the State Capitol.



## Change is Always Good...Right?

By Susan Keller, ND State Veterinarian

It seems appropriate at the beginning of another year full of inevitable changes, to review the past and, if possible, make improvements for the future. Sometimes changes are beyond our control and other times, because we're busy and simply don't have time to get involved, changes take place that we may not appreciate down the road.

2015 is a year that swine and poultry producers as well as animal health officials won't soon forget. They've experienced a great deal of unwanted change.

The swine industry had to implement changes in their biosecurity practices due to the introduction of multiple types of Swine Enteric Coronavirus Disease (SECD) viruses, including Porcine Epidemic Diarrhea Virus (PEDV) and more recently, they are also responding to a virulent form of Seneca Valley Virus (SVV) that has impacted swine operations in other states. The epidemiology information indicated feed ingredients or containers were a plausible means of initial introduction into swine operations. Prior to identification of the SECDs in the US, the viruses had most recently impacted operations in China. The SVV, which is associated with high morbidity rates in swine, is similar to a strain also identified in Brazil.

Highly Pathogenic Avian Influenza (H5N2) is believed to have been introduced via the migratory bird pathways from the northwest part of the nation. This unique strain of avian influenza resulted when two prior existing viruses converged in Canada and then further spread on the ground, via fomites, domestic birds, and human movement. We have all been painfully reminded that when it comes to highly contagious and infectious diseases (whether international animal health organizations refer to it as a Foreign Animal Disease or a Transboundary Disease), biosecurity does not end at the farm gate any longer, but extends to and beyond every barn door. Disease prevention is something that is ultimately back on the shoulders of producers to do their part to protect their animals whether commercial operations or backyard operations.

A recent article from Arizona State University (released December 22, 2015), sums up where we are with the risk of introduction of diseases and most importantly 'why'. International trade and travel allows people to enjoy new vistas and it also allows products and services to move around the globe. Due to the inevitable movement of people, animals and products, there is a definite growing risk of disease introductions through means and methods that were not as common in the past. Another recent recognition of risk by USDA-APHIS-VS officials is that some feed ingredients are 'only' available from certain countries. Therefore, it is no longer a matter of decreasing risk simply

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by changing where you source products from. *Markets and world currency values determine where products are sourced from. In situations where feed ingredients are only manufactured in certain countries, the processing infrastructure may be less regulated than in the United States.*

The question we may need to ask ourselves is this, 'Is it really *good business* for a company to put the profits of their shareholders and profit margins ahead of what is safe for live animals and consumers in the US?' There is need for discussions among livestock producers, the veterinary community, and health (animal and human) officials about the impacts of the ever increasing movement of animals, products, and people as it pertains to animal health, food security, and national security. The impacts need to be mitigated or avoided.

The good news for disease investigators is that DNA technology at the virus and bacteria level, now provides the ability to add more detail to epidemiology investigations. Hopefully, with the new addition of whole genome sequence information veterinarians and producers will be better able to develop biosecurity plans to help prevent unwanted disease introductions into their operations....despite the increasing movement of animals, products, and people.

May you look at this New Year as being filled with unique challenges and opportunities! In our ever-changing world, an increasing understanding of biosecurity measures will continue to be a vital tool in the ongoing effort to prevent disease introduction. Please let us know if you have a suggestion as to how we might better assist in biosecurity and disease prevention efforts.

On behalf of the Board of Animal Health and the ND Department of Agriculture, I want to thank all livestock producers and veterinarians for your dedication and commitment to the animals you care for.

## Administrative Rules

The State Board of Animal Health is revising all chapters of administrative rules relating to animal health. The administrative rulemaking process began in October. A draft of the proposed rules is available from the office, however, the comment period ended January 20, 2016. The change in the rules that has an economic impact is a proposed brand inspection fee increase. Most of the animal health related changes are being done to organize the rules and update outdated language. Other changes incorporate existing policies and orders of the board into formal rules, and still others will make state regulations more consistent with federal standards. If approved, the rules are expected to become effective in the summer of 2016.

## Avian Influenza Sample Collection Protocol



A guide on collecting oral swabs for avian influenza is available from our office. If you would like the laminated guide please contact our office and we will mail one to you. The guide is also available on our website at <http://www.nd.gov/ndda/disease/avian-influenza>.

## Official Tags

Multiple tags and taggers are now available for official use from the Animal Health Division. All metal tags are now manufactured by Hasco. Orange RFID tags manufactured by Temple Tag are available for use as official brucellosis vaccination tags. We also have white RFID tags manufactured by Destron Feiring which can be used in place of a USDA silver brite tag. Please note that prices have changed. The order form is available on the next page as well as online at [www.nd.gov/ndda](http://www.nd.gov/ndda), search "RFID tags".

**ORDER REQUEST**

NORTH DAKOTA DEPARTMENT OF AGRICULTURE  
 STATE BOARD OF ANIMAL HEALTH  
 SFN 19365 (12-2015)

Date
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Name of Clinic			
Mailing Address	City	State	ZIP Code
UPS Address			

VETERINARIAN NAME (List All)	6-DIGIT NATIONAL ACCREDITATION NUMBER	CATEGORY 1=Limited 2=All
		<input type="checkbox"/> 1 <input type="checkbox"/> 2
		<input type="checkbox"/> 1 <input type="checkbox"/> 2
		<input type="checkbox"/> 1 <input type="checkbox"/> 2
		<input type="checkbox"/> 1 <input type="checkbox"/> 2
		<input type="checkbox"/> 1 <input type="checkbox"/> 2

ITEM ORDERED	QUANTITY ORDERED	PRICE PER ITEM	TOTAL
<input type="checkbox"/> Brucellosis Tags-Metal-HASCO	Boxes	\$10.00/Box (1000 Tags/Box)**	\$
<input type="checkbox"/> Brucellosis Tags-RFID	Boxes	\$7.00/Box (500 Tags/Box)**	\$
<input type="checkbox"/> Identification Tags-Metal-HASCO	Boxes	\$10.00/Box (1000 Tags/Box)**	\$
<input type="checkbox"/> Identification Tags-RFID	Boxes	\$7.00/Box (200 Tags/Box)**	\$
<input type="checkbox"/> Tagger for HASCO Metal Tags <input type="checkbox"/> 49/56SA Applicator <input type="checkbox"/> 7S Compound Leverage Applicator	Taggers	\$7.50/Tagger**	\$
<input type="checkbox"/> Health Certificates	Books	\$20.00/Book (50 Certificates/Book)**	\$
<b>TOTAL AMOUNT ENCLOSED</b>			\$

\*\* Prices are subject to change!!

Mail this copy, along with payment to:

North Dakota Department of Agriculture  
 State Board of Animal Health  
 600 E Boulevard Ave, Dept 602  
 Bismarck ND 58505-0020

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Tag Number	Book Number	Date Shipped
		Postage

**Winter 2016**

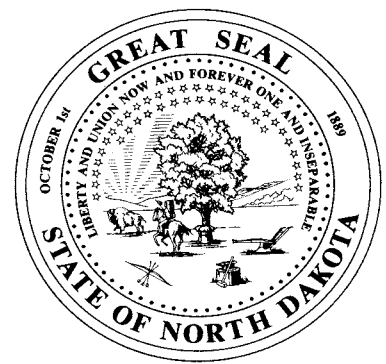
# Annual Reserve Veterinary Corps Meeting Held

The 2016 Annual Reserve Veterinary Corps (RVC) Meeting was held January 26-27 in Bismarck. The meeting covered a broad range of topics timely to animal health.

- Dr. Carrie Hammer, NDSU Equine Studies program, gave an overview of emerging, re-emerging, and foreign animal diseases affecting horses.
- Dr. Carl Heckendorf, Colorado Department of Agriculture, discussed the 2015-2016 Vesicular Stomatitis outbreak.
- Dr. Ron Tessman and Dr. Justin Widener, both with Merial, gave a presentation on Foot and Mouth Disease, vaccination, and vaccine bank options.
- Reserve Veterinary Corps members were respiratory fit tested to ensure that they were prepared to don appropriate respiratory protection if required for a disease response.
- Dr. Patrick Webb, National Pork Board, gave an overview of Seneca Valley Virus and the regulatory and industry response to the disease.
- Dr. Larry Schuler, USDA-APHIS-Veterinary Services, discussed USDA's regulations for international trade of live animals and animal products.
- Dr. Lynn Tesar, USDA-APHIS-Veterinary Services, gave updates on multiple issues pertaining to accredited veterinarians.
- Dr. George Amsden and Dr. Steve Goff, both of USDA-APHIS-Veterinary Services, covered response efforts related to the 2015 Highly Pathogenic Avian Influenza outbreak.
- John Paulson, USDA-APHIS-Wildlife Services gave an overview on wildlife damage management and predator control efforts.
- Dr. Brett Webb, NDSU Veterinary Diagnostic Laboratory, instructed a wetlab for the RVC on avian necropsy.



North Dakota's Reserve Veterinary Corps (RVC) is made up of 21 mixed animal veterinarians from across the state. The group was formed in 2003 to provide training to veterinarians to be able to assist the Animal Health Division in the event of a foreign animal disease or other animal health emergency. If you are interested in joining the RVC, please contact Dr. Sara McReynolds at [smreynolds@nd.gov](mailto:smreynolds@nd.gov).



## Animal Health News

is published by

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# Disease updates

## Disease Surveillance

Veterinarians should remain watchful for potential foreign animal diseases, other reportable diseases, and especially any vesicular lesions. Please contact either the state veterinarian or the federal assistant district director if any of these conditions are noted. The State Board of Animal Health has limited funds to help with diagnostic costs associated with unusual disease situations. Veterinarians who have such a case should call (701) 328-2655 to learn if funds are available.

## Anaplasmosis

As animals and vectors move, so do diseases. For the past couple of decades, clinical Anaplasmosis was rarely identified in ND and surrounding areas, but because it is thought to be so rare, routine testing for the disease is not considered. As with most diseases, without some consistent level of ongoing surveillance, the actual incidence and prevalence of the disease cannot be known.

What we do know about this infectious parasitic disease of cattle is that it's spread primarily by ticks and blood-sucking insects. It's also thought to be spread efficiently though the sharing of needles during vaccination or treatment of groups of animals.

Animal health professionals from southern states have indicated that Anaplasmosis is so prevalent in some areas that producers routinely have to treat and monitor their cattle for the disease. While northern veterinarians may have clients that have to medicate young livestock on pasture to prevent footrot, down south it is not uncommon to have to administer antibiotic with a mineral mix in order to help them survive the exposure to *Anaplasma marginale* that is inevitable in endemic areas.

Since the parasite infects the red blood cells, the clinical signs include severe anemia, jaundice, weakness, fever, lack of appetite, depression, constipation, decreased milk production, abortions, and sometimes death. It is not terribly unusual to see a lab report for a bovine in ND with a titer for *Anaplasma*, but it is rare to have animals reported with clinical signs. Unfortunately this year, we have seen several lab reports indicating that there have either been animals imported into ND that brought the disease with them or animals that have been out of state and then returned which were exposed and brought the disease with them. The inevitable movements of animals within the US and within our state, means the risk of disease movement is a given. Some literature indicates that horseflies carrying the intraerythrocytic, infectious agent can travel up to 2 miles away. While vectors are a

concern, there is evidence that the disease spreads most efficiently through the use of unclean and unsterilized equipment associated with castrating, ear tagging, dehorning, tattooing and vaccinating.

A vaccine is available, but it is not guaranteed to prevent disease, only to help decrease the severity of the disease. The vaccine is only approved for experimental use and special permission is required from the state veterinarian's office for use. Treatment of known positive and exposed animals is more effective in controlling the disease. There are also recommendations supported by some which claim the carrier state in cattle can also be cleared with adequate treatment over time. Please look to articles that are available on the North Dakota Department of Agriculture's website at <http://www.nd.gov/ndda/program/animal-importation-requirements>

Anaplasmosis is not a disease that requires a quarantine of the animals, but it is a lab reportable disease. Veterinarians are being asked to remember the clinical signs of Anaplasmosis and to explain the potential routes of transmission and introduction to their clients. The sooner it is identified, the less likely the disease will spread. Good biosecurity and avoidance of sharing needles and equipment will help minimize the impact of this disease.

## Animal Disease Traceability

Traceability performance measures are primarily focused on administration of official identification and CVI records and is a requirement of our Animal Disease Traceability Cooperative Agreement with USDA. The cooperation and assistance of producers and veterinarians has enabled North Dakota to be very successful in our trace exercises.

	Average Time to Complete Exercise	
Performance Measures	ND Animal Health Division	USDA Report of National Average
In what state was an imported animal officially identified?	4.7 hours	39 hours
Where in the state was the animal officially identified?	13.2 hours	35 hours
From what state was an animal shipped?	18.4 hours	42 hours
From what location was an exported animal shipped?	7.3 hours	46 hours

## Avian Influenza

In 2015, Highly Pathogenic Avian Influenza (HPAI) devastated both the commercial turkey industry and commercial egg layer industry in the upper Midwest. Between December 19, 2014 and June 17 2015, 219 premises in 15 states were affected by the disease. Over 48 million birds died or were euthanized due to this outbreak.

In North Dakota, two commercial turkey flocks, were affected. Over 150,000 birds on the farms, located in Dickey and LaMoure counties, died or were euthanized as a result.

As a result of HPAI, the State Board of Animal Health implemented a ban on all poultry exhibitions and public sales in April. This was done at the request of the turkey industry in order to minimize the chance of disease introduction and spread at these events. The Board lifted the ban in December.

On January 15, 2016, Highly Pathogenic H7N8 was confirmed on a commercial turkey farm in Indiana.

## Brucella canis

*Brucella canis* has been identified in two dogs in North Dakota. Both dogs were stray dogs which were obtained out of state by rescue groups and adopted into homes in North Dakota. Both dogs presented with clinical signs of arthritis and back pain, including an abnormal gait. *B. canis* is a zoonotic disease, spread through reproductive fluids, urine, blood, and other bodily fluids, and capable of causing severe disease in humans. Stray dogs and dogs in breeding kennels are at an increased risk of having the disease.

## Brucella ovis

*Brucella ovis* (*B. ovis*) is a sexually transmitted disease causing epididymitis, orchitis and impaired fertility in rams. It is occasionally associated with abortion in ewes, and can also cause lambs to be stillborn or weak at birth.

Definitive diagnosis is based upon culture of the organism from semen or tissues.

Many states, including North Dakota, require a negative *B. ovis* test on rams prior to importation. The ELISA test is the test of choice as it is the most sensitive. Unfortunately, false positives can occur. When an apparently healthy ram with no fertility concerns tests positive on the ELISA for *B. ovis*, the recommendation is to wait and retest in 3-4 weeks. If a second positive test occurs, it is recommended that the ram be castrated or slaughtered.

Producers who sell rams may wish to become a *B. ovis* Certified Free Flock. In order to become certified, all rams which are one year of age or older must be tested twice, 45-60 days apart. Thereafter, one test of all rams one year of age and older each year will maintain certification. Most

states accept this certification in lieu of testing young rams. When submitting samples for certification testing, "flock certification testing" should be noted on the submission form.

## Canine Influenza: Pet Owners' Guide

Source: American Veterinary Medical Association (<https://www.avma.org/public/PetCare/Pages/CanineInfluenza.aspx>)

Canine influenza (CI, or dog flu) in the U.S. is caused by the canine influenza virus (CIV), an influenza A virus. It is highly contagious and easily spread from infected dogs to other dogs through direct contact, nasal secretions (through barking, coughing or sneezing), contaminated objects (kennel surfaces, food and water bowls, collars and leashes), and by people moving between infected and uninfected dogs. Dogs of any breed, age, sex or health status are at risk of infection when exposed to the virus.

Unlike seasonal flu in people, canine influenza can occur



year round. So far, there is no evidence that canine influenza infects people. However, it does appear that at least some strains of the disease can infect cats.

### Canine influenza symptoms and diagnosis

CIV infection resembles canine infectious tracheobronchitis ("kennel cough"). The illness may be mild or severe, and infected dogs develop a persistent cough and may develop a thick nasal discharge and fever (often 104-105°F). Other signs can include lethargy, eye discharge, and reduced appetite. Some dogs may not show signs of illness, but can shed the virus and infect other dogs.

Most dogs recover within 2-3 weeks. However, secondary bacterial infections can develop, and may cause more severe illness and pneumonia. Anyone with concerns about their pet's health, or whose pet is showing signs of canine influenza, should contact their veterinarian.

CIV can be diagnosed early in the illness (less than 3 days) by

testing a nasal or throat swab. The most accurate test for CIV infection is a blood test that requires a sample taken during the first week of illness, followed by a second sample 10-14 days later.

### **Transmission and prevention of canine influenza**

Dogs are most contagious during the two- to four-day incubation period for the virus, when they are infected and shedding the virus in their nasal secretions but are not showing signs of illness. Almost all dogs exposed to CIV will become infected, and the majority (80%) of infected dogs develop flu-like illness. The mortality (death) rate is low (less than 10%).

The spread of CIV can be reduced by isolating ill dogs as well as those who are known to have been exposed to an infected dog and those showing signs of respiratory illness. Good hygiene and sanitation, including hand washing and thorough cleaning of shared items and kennels, also reduce the spread of CIV. Influenza viruses do not usually survive in the environment beyond 48 hours and are inactivated or killed by commonly used disinfectants.

There are vaccines against the H3N8 strain of canine influenza, which was first discovered in 2004 and until 2015 was the only strain of canine influenza found in the United States. However, a 2015 outbreak of canine influenza in Chicago was traced to the H3N2 strain – the first reporting of this strain outside of Asia – and it is not known whether the H3N8 vaccine provides any protection against this strain. Used against H3N8, the vaccines may not completely prevent infection, but appear to reduce the severity and duration of the illness, as well as the length of time when an infected dog may shed the virus in its respiratory secretions and the amount of virus shed – making them less contagious to other dogs.

In November 2015, the U.S. Department of Agriculture granted a conditional license to Zoetis to market the first commercially available H3N2 canine influenza vaccine. Later that month, Merck Animal Health announced the availability of an H3N2 canine influenza vaccine, also conditionally licensed by USDA.

The CIV vaccination is a “lifestyle” vaccination, recommended for dogs at risk of exposure due to their increased exposure to other dogs – such as boarding, attending social events with dogs present, and visiting dog parks.

### **Chronic Wasting Disease**

Chronic Wasting Disease surveillance continues in North Dakota. Since February of 1999, 10,612 samples from farmed deer and elk have been submitted, with no evidence of disease. The North Dakota Game and Fish Department has tested over 29,000 wild deer, elk and moose since 2000. They

have identified seven (7) positive animals, all in the central part of hunting unit 3F2, which includes Sioux and portions of Morton, Grant, Adams and Hettinger counties.

### **Johne’s Disease**

The North Dakota Voluntary Johne’s Disease Control Program, funded by the state of North Dakota and supported by many industry groups, has budget of \$200,000 per biennium. There are 191 producers presently in the program. This past year, the funding available for partial reimbursement to producers was limited by the end of the biennium. With the current biennium beginning on July 1, 2015 we are in good shape at this time with approximately \$50,000 spent and \$150,000 remaining in the fund. In order to get reimbursed for testing, our office must receive the risk assessment and herd agreement forms from the herd veterinarian within 60 days of the testing the herd. The forms are available on our website at <http://www.nd.gov/ndda/disease/johnes-disease>. Our current reimbursement rate to the producer is \$75 for the risk assessment, \$25 for pooled PCR, and \$2.50 for ELISA. There is not any reimbursement for follow-up individual testing of positive pools. If you have any questions about the program or reimbursement process please call our office.

### **Swine Enteric Coronavirus Disease (SECD)**

In October of 2015, North Dakota had its second confirmed case of Porcine Epidemic Diarrhea virus (PED) diagnosed in a swine operation. The first case in North Dakota was identified in February 2014. North Dakota has long been regarded as a relatively safe and disease free region of the US to raise pigs. The recent PED break, especially in a year where there has been little PED activity in the upper Midwest, highlights the importance of heightened awareness in areas that may not have required it previously.

The origin of this case may never be known. Perhaps it was carried in the feed, trailers or drifted off the road in transport trailers loaded with feeder pigs. In reality, it would appear that secluded areas of the state are no longer as bio secure as they once were.

### **North Dakota State Board of Animal Health**

For more information on these and other topics, please contact us:

Office: (701) 328-2655 | Toll Free: 1-800-242-7535  
Email: [doa-bah@nd.gov](mailto:doa-bah@nd.gov)

## Rabies victim's children tell her story

The following is a story on rabies that ran in the Powell (Wyoming) Tribune.

*Source: Ilene Olson, Powell Tribune*

A 77-year-old woman from Lander, Wyoming, died of rabies in a Salt Lake City hospital on Oct. 3.

Her three children decided to tell their mother's story in the hope that they can spare another family the grief and trauma they have experienced.

"Given the unusual set of circumstances, we want to make sure the right message is given to the public to prevent this tragedy from ever happening to another family," they said in a written account.

The family's story began on a beautiful summer evening when their mother and father entertained guests on the outdoor patio of their home. At the end of the evening, they propped their front door open for departing guests.

That night, the woman woke up feeling something on top of the covers over her leg, they said.

"Her initial reaction was to brush whatever it was off the bed, which woke up our father," a daughter wrote. "It was then that they discovered that it was a bat. They waited for it to land, placed a towel over it, and with gloves, our dad carefully captured it in a container and got it out of their home.

"He then had our mom wash her hand that had brushed away the bat with soap and water and proceeded to look for any bites with a magnifying glass. He carefully examined her hand for several days. There was never any indication of a bite — ever."

It was nearly 41 days later when the woman began to feel like she had the flu, the daughter said.

"That was the onset of the symptoms of this devastating virus," she said.

The initial diagnosis was Guillan Barre Syndrome.

"She was life-flighted to the University of Utah Medical Center, where the diagnosis of an atypical and very rare presentation of rabies encephalitis was made one day prior to her death," the daughter said.

"This was a shock to all the medical experts as well as to us as a family. The entire length of her disease, from those initial flu-like symptoms to death, was only 12 days."

In their account, the siblings said this was not their parents' first brush with a bat in their house.

"During the 35 years that our parents lived in their home, they have had a few encounters with bats in which our

dad, using gloves, was safely able to capture the bats in a container.

"In fact, on three separate occasions they took the bats to four different local agencies to see if they could test the bats for rabies."

All four said they could not perform that testing.

"Last summer, our dad opened up one of their outside umbrellas, and a bat flew out of it. Given this experience, he called two exterminating companies to see if they could somehow get rid of any bats that may come close to their home.

"He was told by both companies that they could not spray for bats, and there was nothing they could do. Our parents were informed, 'You have to learn to live with the bats.'"

Exterminators reminded them that bats are good for insect control, especially mosquitos, thereby helping to prevent West Nile virus — "all of which was true," the daughter wrote.

"We feel our parents did everything possible to control for bats around their home," the siblings concluded. "There is no evidence, nor had there ever been any evidence, of a colony of bats living close to their home. It is mainly one or two flying by, eating insects on a summer evening."

Since their mother's illness and death, the family has heard from numerous people who have had similar experiences with bats. They wish to pass along the following information to increase people's awareness of the potential danger and how they should respond:

- After any encounter with a bat, seek medical advice, even if there is no indication of a bite.
- If you wake up with a bat in your home, seek medical advice.
- If you have friends or family members who tell you about a bat encounter, encourage or demand that they seek medical advice.
- There should be a local agency that has the ability to test bats for the rabies virus. Scientific literature estimates that 0.5-1 percent of bats carry the rabies virus, but they do not appear as "rabid" as other animals; they are just carriers of the disease.
- There has never been a reported case of human-to-human transmission of the virus, except in organ transplantation.

"None of us knew this information before all of this happened to our family," the siblings said. "Our story ends with the loss of a beautiful, vibrant, loving wife, mother, grandmother and great-grandmother."



“Our family was devastated by the almost incalculable odds of the combined sequences of events that occurred,” the daughter wrote as spokeswoman for all three siblings. “But as the fog of sadness and devastation begin to lift, we realize how incredibly lucky we are that our parents live in such a beautiful community as Lander, and an even broader community in the state of Wyoming and the United States.

“The outpouring of love, support and compassion from so many has helped to ease our profound sadness and shown us the true beauty of human nature.”

*Editors Note: In 2015, three bats in North Dakota tested positive for rabies.*

## Seneca Virus A (Seneca Valley Virus)

Senecavirus A is a non-enveloped single-stranded RNA virus of the family Picornaviridae. Foot and Mouth Disease Virus and swine vesicular disease virus are also members of this same viral family. Senecavirus A has been reported in swine



in the United States, Canada, Australia, Italy, New Zealand and most recently Brazil. Previously in the United States, farm outbreaks have been sporadic (less than 20 have occurred in since the 90s), but they have been recognized in multiple regions. States that have had the virus identified between 1988 and 2001 are California, Illinois, Iowa, Louisiana, Minnesota, New Jersey, and North Carolina. As of January, 2016, the disease has not been identified in North Dakota.

Recently, Senecavirus A has been frequently associated with clinical syndromes in swine that include vesicular lesions. Over 50 outbreaks have been reported in multiple states including Minnesota, South Dakota, Iowa, and Nebraska. In some cases, swine herds approach 80 percent morbidity, with clinical signs of snout and coronary band vesicular

lesions. In other cases only 5 to 10% of animals are affected.

Often animals are reported to be afebrile and are bright, alert, and responsive. Mortality in preweaned pigs has also been reported. Producers with affected herds must communicate with their veterinarian and processing plants prior to shipping animals with healing lesions.

Veterinarians and producers must remain vigilant to report a possible Foreign Animal Disease (FAD) and rule out other vesicular disease such as Foot and Mouth Disease. Call our office at 701-328-2655 if you see suspicious lesions.

## Trichomoniasis

A reproductive disease of cattle that can be economically devastating for ranchers has recently been diagnosed in four South Dakota cattle herds. Bovine trichomoniasis, or trich, has been diagnosed in Oglala Lakota, Corson, Ziebach and Dewey counties since November 2015.

Trichomonas foetus is transmitted between cows and bulls during breeding, and can result in early term abortions. Producers are often unaware of the problem until the disease is well established in the herd. Signs that the disease may be present in a herd include a high number of open cows, cows showing signs of heat when they should be pregnant, and the presence of many late-calving cows.

Producers can take precautions to help prevent their herd from becoming infected. First, only purchase and use virgin bulls for breeding. If non-virgin bulls are purchased, they must be tested negative for Trichomonas foetus prior to breeding. Timely pregnancy testing of females and prompt removal of open cows to be sold for feeding and slaughter will also decrease the risk of disease spread. Finally, maintain good border fencing to help keep livestock in their respective pastures and avoid unintentional commingling of animals.

In cooperation with the cattle industry, the South Dakota Animal Industry Board has implemented rules in an effort to help prevent trichomoniasis in cattle:

1. Non-virgin bulls must be tested negative for trichomoniasis prior to being sold, loaned or leased in South Dakota for breeding purposes;
2. Any non-virgin bull entering South Dakota must be tested negative for trichomoniasis;
3. No non-virgin and non-pregnant female cattle may be imported, loaned, leased nor acquired for breeding purposes in South Dakota.

In June of 2012, the North Dakota State Board of Animal Health implemented importation requirements to help prevent the introduction of trichomoniasis into the state. North Dakota's Board Order relating to trich can be found on the web at <http://www.nd.gov/ndda/orders/board-order-2007-03-testing-and-importation-requirements-related-trichomonas-foetus-cattle-re>

## Tuberculosis

Bovine tuberculosis was last identified in North Dakota in November of 2013. A herd test was performed at a dairy due to the diagnosis of TB in a worker at the farm. This led to confirmation of *Mycobacterium bovis* in three dairy cattle. After three negative whole herd tests in 2014, the herd was released from quarantine in November of 2014.

In November of 2015, staff from the Animal Health Division and USDA-APHIS-Veterinary Services completed a whole herd test on the herd. No evidence of tuberculosis was found. Subsequent assurance herd tests will be performed annually through 2019.

## Tularemia

*Francisella tularensis*

Multiple cases of tularemia were identified in the state in 2015. Animal cases were confirmed in wild squirrels in Ward County and in captive primates in Burleigh County. Human cases were confirmed in Burleigh, LaMoure, Stark, and Ward counties. None of the human and animal cases were thought to be related.

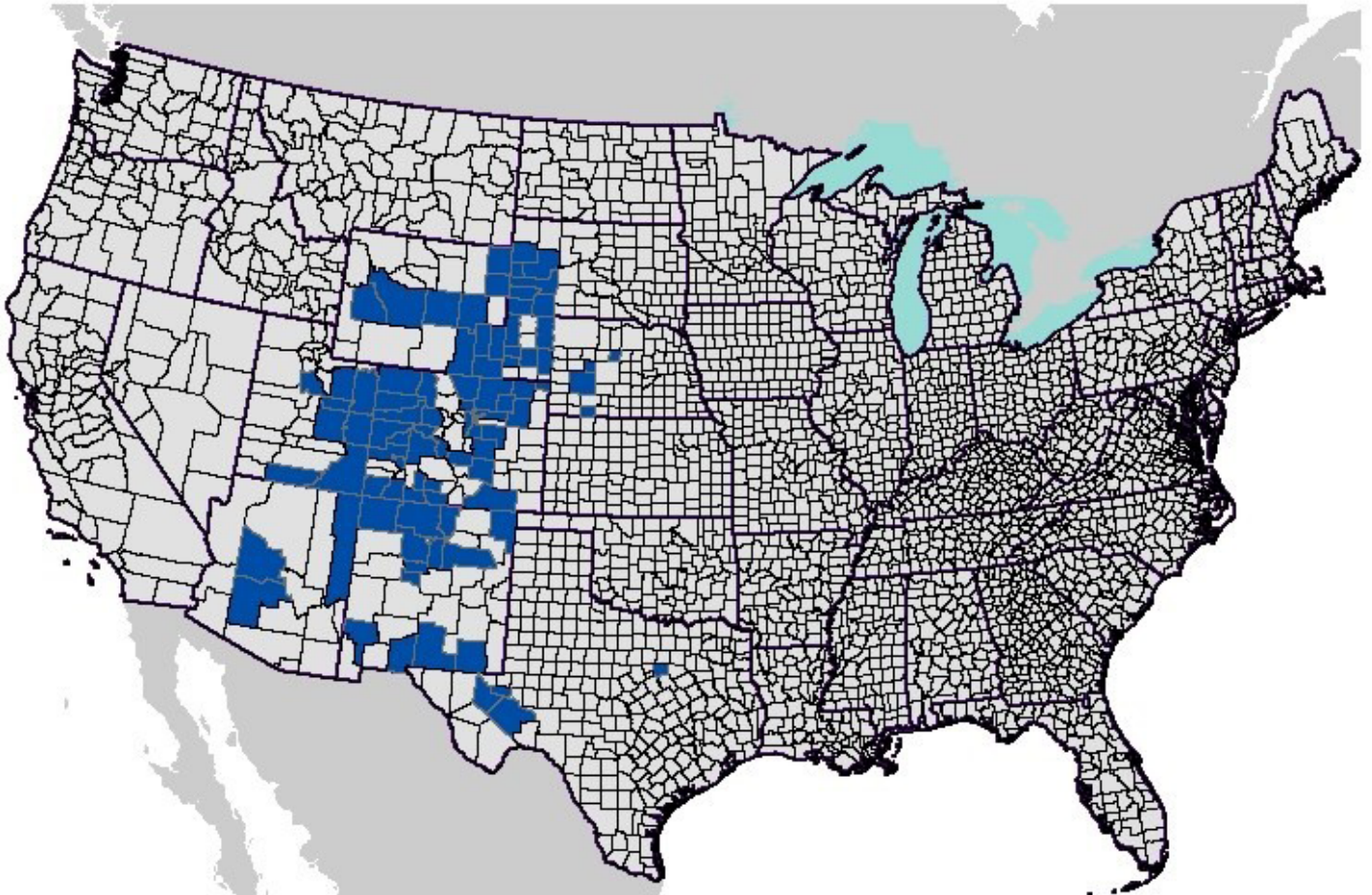
Controlling ticks and avoiding contact with wild animals are the best ways to prevent disease. Those who must handle wild animals should wear gloves to minimize the chance of exposure to tularemia as well as other diseases.

## Vesicular Stomatitis

The United States experienced another busy year of vesicular stomatitis (VS) in horses and cattle. The World Animal Health Association recently removed VS from the list of immediately reportable diseases. This change at the international level, and the 2014 VS experience allowed the USDA to make some much needed changes to how states and practitioners respond to suspected cases of VS. VS is still a regulatory concern (and reportable) because when found in cattle, it is clinically indistinguishable from foot and mouth disease (FMD). While FMD does not affect equines, the presence of VS in horses allows us to avoid panic mode when multiple cattle with vesicles in the same geographical area are detected.

The 2014 VS outbreak that finished in March of 2015 affected 420 premises in four states. For the outbreak that began on April 29, 2015, the total thus far is 820 cases in eight states; Arizona (36), Colorado (438), Nebraska (38),

## VSV Cumulative: Counties with Premises Quarantined April 29, 2015-present



New Mexico (52), South Dakota (50), Texas (5), Utah (56), and Wyoming (146). These counts represent total premises; only five affected premises still remain under quarantine in Colorado.

**Under the changes to the USDA guidance to VS:**

1. The quarantine period for premises with suspect or confirmed VSV cases will be reduced to 14 days from the onset of lesions in the last affected animal on the premises.
2. After confirmation of the first VSV case in a state, equine with suspected lesions on subsequent premises are not required to be tested, but the premises will be quarantined for the time period stated above.
3. Accredited veterinarians may be used to collect samples and monitor premises with suspected equine VSV cases at the discretion of the state veterinarian.
4. Existing VSV-approved NAHLN laboratories (North Dakota Veterinary Diagnostic Laboratory) may request to be activated after the first case in a state is confirmed.
5. A Foreign Animal Disease Diagnostician (FADD) will still be dispatched on all suspect cases involving cattle with lesions.

**Email Updates**

Veterinarians wishing to receive timely information regarding disease situations can sign up for periodic email updates from the Board of Animal Health. To get on the list, contact [tcelley@nd.gov](mailto:tcelley@nd.gov), or call (701) 328-2655.

# By the Numbers: North Dakota Cases in 2015

2

Cases of Anthrax

1

Case of Porcine Epidemic  
Diarrhea Virus

3

Cases of Tularemia  
in animals

6

Cases of Rabies

3

Cases of West Nile

# Animal Health News

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[www.nd.gov/ndda](http://www.nd.gov/ndda)

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- **In this Animal Health News...**
- A note from the State Veterinarian
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- Disease Updates
- By the Numbers...North Dakota Cases in 2015