

STOCK QUOTES

Animal Health Newsletter

<https://liv.mt.gov/Animal-Health/Newsletters/>

ISSUE 4 | DECEMBER 2024 | VOLUME 17



Quarterly Newsletter from the Animal Health
Bureau of the Montana Department of Livestock
(MDOL)

STATE VETERINARIAN NOTES

Tahnee Szymanski, DVM

Christmas came early with the United States Department of Agriculture (USDA) recent announcement that the agency had completed its biennial review of the Biological Select Agents and Toxins list and was removing *Brucella abortus*, *Brucella suis*, and *Brucella melitensis*, along with two other agents from the list. As Montana has been managing the risk of brucellosis in wildlife in the Greater Yellowstone Area (GYA) for more than two decades, this announcement is to be celebrated. Select agent restrictions have limited opportunities for important research on better tools for brucellosis management. I am hopeful that the delisting of brucellosis will lead to increased research on potential diagnostics, vaccines, and vaccine delivery mechanisms to assist with management and that these advances may help us ease the burden on producers. Thank you if you took the time to comment.

While fall is a busy time of year for brucellosis related work, fall testing has brought only a single suspect animal that is being followed in Gallatin County. The Department is also working with two non-Designated Surveillance Area (DSA) ranches on slaughter tracebacks. Testing of both herds is nearly complete with no evidence of disease.

Highly pathogenic avian influenza (HPAI) detections, however, are increasing in poultry flocks across much of the United States with 47 premises in 13 states since December 1. While a number of these detections are related to the lateral spread of the B3.13 dairy genotype in states such as Utah and California, the number of detections associated with wild bird genotypes are also increasing (see page 2). This increase is consistent with the two prior years of this outbreak suggesting that the risk of disease introduction from wild birds will remain elevated for the next several months. Poultry producers across Montana should continue biosecurity practices that limit exposure to wild birds and limit opportunities for movement of the virus into chicken coops such as dedicated footwear, covered food stores, and protected water sources.

This newsletter brings the final piece of a four-part series on the Secure Beef Supply plan (see page 5). During a foreign animal disease (FAD) outbreak, officials must critically evaluate the disease transmission risk associated with animal movements. A SBS plan is a business continuity plan for a beef premises to reduce the risk of disease and to demonstrate disease freedom during an outbreak. As we have previously discussed, in the immediate aftermath of a large-scale disease detection, such as Foot and Mouth Disease (FMD), a national stop-movement order will be issued. The purpose of the stop movement is to allow animal health officials time to identify the scope of the outbreak and to put control measures in place. While the target is a 72-hour down time, the reality is the stop movement may be of much longer duration and may not be lifted uniformly. For premises in a control area or in proximity to a control area, having a Secure Beef Supply (SBS) plan in place before the outbreak may put you at the front of the line for reentering commerce.

In what feels like a cart before the horse moment, as we close this chapter of discussions on SBS planning, we are turning next to the 72-hour stop movement (see page 5). The Department has received a grant that will allow us to develop a stop movement plan for the state of Montana that will include a communication plan and our operational approach to stopping the movement of livestock across Montana. We will be having meetings across the State over the next 12 months and hope that you will participate in a meeting in your area. Enjoy your holiday season! a

INSIDE THIS ISSUE

State Veterinarian Notes	1
High Path Avian Influenza (HPAI) Updates	2
ADT Rule Frequently Asked Questions: Heidi Hildahl, DVM, PhD	3
MDOL Staff Corner: Heidi Hildahl, DVM, PhD	4
MDOL Staff Corner: Brenee Peterson, DVM	4
Montana SBS Planning Part 4: Disease Monitoring	5
National Animal Disease Preparedness and Response Program (NADPRP)	5
Feeder Heifer Identification	6

WHAT'S NEW

- ADT Rule Frequently Asked Questions, pg. 3
- MDOL Staff Corner, Dr. Heidi Hildahl and Dr. Brenee Peterson, pg. 4
- Feeder Heifer Identification, pg. 6

HIGH PATH AVIAN INFLUENZA (HPAI) UPDATES

Heidi Hildahl, DVM, PhD

Highly pathogenic avian influenza (HPAI) continues to occupy substantial bandwidth at both the state and national level. Montana has responded to three confirmed cases of HPAI in flocks this year, including the depopulation of a 300-bird flock in Missoula County. In addition, Montana Fish, Wildlife, and Parks (FWP) continues to report detections in wild birds ranging from Sandhill cranes to eagles.

As previously discussed, the ongoing HPAI outbreak has utilized whole genome sequencing to aid our understanding of viral spread. Influenza viruses are grouped into types A, B, C, and D and are characterized by a ribonucleic acid (RNA) genome consisting of eight gene segments that encode for various viral proteins essential for replication, host adaptation, and immune evasion. These viruses are placed into subtypes based on the profile of the hemagglutinin protein (HA) and the neuraminidase protein (NA). Individual viruses are also categorized into clades that group viruses based on similar genetic changes and common ancestry. H5N1 (HPAI) is formidable with its ability to mutate spontaneously (genetic drift) and to share genetic information through reassortment with other influenza A viruses (genetic shift).

Viruses in the Influenza A H5N1 2.3.4.4b clade first appeared in the United States in 2021 and in March of 2024, the "dairy" genotype B3.13 in the same clade was identified. Since that initial detection, the dairy genotype has been found on 860 dairy premises and is also responsible for the infection of numerous domestic poultry flocks. These infections are attributed to lateral spread of the virus as the B3.13 genotype has not been found in wild birds. Detections in domestic poultry attributed to disease spread from wild birds span numerous genotypes, including D1.1, 1.2, 1.3, and others. All of Montana's detections since the onset of the outbreak have been genotype D1.1 and therefore attributed to wild bird introduction.

In October 2024, the D1.2 strain was found in an Oregon pig associated with an outbreak in a backyard flock. Pigs present a heightened risk of HPAI genetic shift due to the presence of receptors that attract both avian and mammalian influenza A viruses. In other words, pigs can serve as incubators for new and potentially dangerous strains of HPAI. Because the virus is dangerous in pigs, Oregon animal health officials depopulated all pigs on the infected property. The veterinary diagnostic laboratory that tested the infected pig noted that they found evidence that the pig ate an infected duck, which may explain why infection occurred and why only that pig was infected. For many of the mesocarnivores diagnosed since the beginning of this outbreak, overwhelming viral challenge through exposure to infected animals or environments has been identified as a likely contributing factor.

Along with the detection in swine and the high number of dairy herds affected are an increasing number of human cases. The current CDC count of human cases is at 65 with 39 of these cases attributed to exposure to infected cattle, 23 to poultry, and 2 of unknown origin. Two additional developments related to public health concerns regarding the virus include a teenager in Canada becoming severely ill with a D1.1 variant with no known exposure to wild or domestic poultry and the detection of the HPAI virus in raw milk for retail sale in California.

As the concern regarding the human health risk of this virus continues, these recent developments have been just enough of a catalyst to push federal agencies to take additional proactive measures to limit the spread of HPAI in mammals and ultimately eradicate HPAI from dairy cattle in the US. On December 6, 2024, United States Department of Agriculture (USDA) announced the National Milk Testing Strategy. The new federal order requires mandatory testing of raw milk and mandatory reporting of positive samples to USDA for confirmation and genotyping. This federal rule does not affect the previous federal order announced on April 24, 2024, that requires testing of dairy cattle moving interstate. Montana Department of Livestock (MDOL) has been working with Montana dairies and milk processors to develop a plan for monthly testing that is projected to start December 16th. Montana's surveillance program is centered around Grade A dairies where all milk is pasteurized prior to sale. We would be happy to extend surveillance to any raw milk producers who may also be interested. Because of the high viral load in the milk of affected animals, MDOL strongly advocates that raw milk from sick animals should not be consumed. a

ANIMAL DISEASE TRACEABILITY (ADT) RULE FREQUENTLY ASKED QUESTIONS

Heidi Hildahl, DVM, PhD

The Montana Department of Livestock (MDOL) continues to receive questions following the November 5, 2024, implementation of the updated rule on Animal Disease Traceability (ADT). As a reminder, this change requires that all official identification (ID) in cattle and bison be both visually and electronically readable. The class of animals that require official ID has not changed which includes all sexually intact cattle and bison over 18 months of age for interstate travel, all cattle/bison involved in official disease surveillance programs (brucellosis and tuberculosis), all dairy cattle, and all animals for exhibition/sporting. The exemptions for official ID in the federal rule have also not changed, such as animals going directly to slaughter or traveling to an approved tagging site. The transition has been a learning experience for producers and veterinarians. Below are answers to address our most frequently asked questions (FAQs).

NUES metal tags (orange and silver): Metal tags can no longer be applied as a form of federally required official ID as the tags can be hard to read and must be entered into records manually which can make traceability more difficult as transcription errors are common. However, all metal tags placed in the ears of cattle or bison prior to November 5 are considered official ID for the lifetime of those animals and RFID tags are not required to be applied. There is no grace period after November 5, 2024, for the use of metal tags, even for brucellosis vaccinating heifers that will not enter interstate commerce. Leftover metal tags can be returned directly to MDOL or at any of Montana's livestock markets.

RFID tags: Not all electronic IDs are the same! The United States Department of Agriculture (USDA) currently only recognizes 840 RFID tags that have the official United States seal. The number 840 is the country code for the United States. The tags generally come in the colors white, yellow, or orange. For Bangs's vaccination, orange tags have been historically used, but white and yellow can also be used for when vaccinating heifers.

Any imported cattle from Canada or Mexico cannot have an 840 tag as a replacement when their ID is lost because they do not originate from the United States. Instead, USDA has created a special blue and lime green RFID tag that has the official US shield, the letters IMP for "import" with a number that starts with 946, which is a manufacturer code. Currently, import RFID tags have been distributed to district brand investigators for easy access by veterinarians if the need arises for a replacement import tag.



Figure 1. Replacement 964-RFID Tag. Source: USDA

No-cost RFID tags: To determine a state's allocation of no-cost RFID tags, USDA has used cattle inventories provided by the National Agricultural Statistics Service (NASS), which fails to account for unique use patterns in states such as Montana that brucellosis vaccinates a high percentage of females annually. The USDA has maintained that they are not obligated to provide no-cost tags for all animals and that no-cost tags should be prioritized by the needs of the individual state. In Montana, no-cost tags are distributed by our state USDA officials. Tags are first prioritized to veterinarians in livestock markets and veterinarians working in the Brucellosis Designated Surveillance Area (DSA). The remainder of the allocated no-cost tags are available to private veterinarians to cover a portion of a veterinarian's annual historical use. Because no-cost tags are in short supply, veterinarians will need to prepare by purchasing RFID tags well ahead of working animals to ensure they don't run out of tags. Tags can be ordered through veterinary distributors or directly from tag manufacturers. Veterinarians need to have a Premise ID to order tags. To get a Premise ID, veterinarians can fill out an application form online at <https://forms.mt.gov/LIV/premises-registration>.

Official ID in the DSA: Montana requires that all sexually intact animals leaving the DSA have official ID. For breeding animals and animals over 12 months of age, a test is also required that ensures animals meet this requirement. For heifers less than 12 months of age in feeding channels, there is no federal trigger requiring official ID. Because this ID is a state requirement and due to the limited supply of no cost RFID tags, 2024 heifers in feeding channels can be identified with a metal NUES tag to meet Montana's requirement. Updated guidance for 2025 born heifers will be forthcoming. or questions regarding the ADT rule, please contact MDOL at 406-444-2976. a

MDOL STAFF CORNER: HEIDI HILDAHL, DVM, PhD

Heidi Hildahl, DVM, PhD

Dr. Heidi Hildahl was raised in Woodward, Oklahoma, but spent her summers in Red Lodge, Montana working on a family friend's ranch helping round up cattle from the mountains on horseback. Dr. Hildahl received a PhD in Molecular Cell Biology in 2005 from the University of Oklahoma and a DVM in Veterinary Science from Oklahoma State University in 2009. After practicing small animal emergency medicine in Billings, Montana for almost six years, Dr. Hildahl moved to Arkansas to become the University of Arkansas Extension Veterinarian and provide mixed animal veterinary relief work on weekends and holidays. She joined the Montana Department of Livestock in July of this year, and her responsibilities include animal disease traceability (ADT), deputy state veterinarian oversight, import requirements and quarantines, reportable diseases tracking, rabies, and feral swine surveillance. She has experience in livestock show medicine, laboratory diagnostics, teaching, public speaking, and writing.

Dr. Hildahl has special interests in animal welfare, infectious disease, viral and bacterial genetics, the interaction of stress on the immune system of cattle, and cattle preventative medicine through vaccination and anti-inflammatory nutrition. She also enjoys communicating with producers and providing education to FFA and 4-H clubs. When not in the office, Dr. Hildahl spends her time camping, hiking, kayaking in the summer, cross-country skiing in the winter, and exploring the scenic trails of Montana with her husband and two teenage boys in their Jeep. She also loves to spend time with her two dogs, Floyd and Lucy. She can be reached by email at heidi.hildahl@mt.gov or by phone at 406-444-5412. α



Figure 2. Heidi Hildahl, DVM, PhD.
Source: DOL Staff

MDOL STAFF CORNER: BRENEE PETERSON, DVM

Brenee Peterson, DVM

Dr. Brenee Peterson grew up on the family farm north of Havre, Montana. Her family raises Polled Hereford cattle and farms many acres of wheat. At a young age, she knew she wanted to be a part of agriculture and decided to pursue veterinary medicine. Dr. Peterson earned her Bachelor of Science degree in Animal Science from Montana State University. After receiving her bachelor's degree, she attended veterinary school and was part of the inaugural class of the WIMU program through Washington State University. She graduated from Washington State in 2018. Following graduation, Dr. Peterson worked as an associate veterinarian in communities throughout the state. Throughout the years she enjoyed practicing mixed animal medicine and enjoyed performing soft tissue surgeries. She is excited to transition into regulatory medicine where she can work with the wonderful men and women of Montana to help protect our livestock industry.



Figure 3. Brenee Peterson, DVM, Tony, & Turk. Source DOL Staff

In her off time, Dr. Peterson enjoys hiking, camping, traveling and helping on the farm. She also enjoys going on adventures with her two mutts Tony and Turk, along with playing fetch with her cat Tang. She can be reached by email at brenee.peterson@mt.gov or by phone at 406-444-2939. α

MONTANA SECURE BEEF SUPPLY PLANNING PART 4: DISEASE MONITORING

Merry Michalski, DVM

Disease monitoring (surveillance) of animals for foot and mouth disease (FMD) involves close observation and testing. Each operation should define the expected range for the parameters listed below that may change with FMD infection based on the herd's recent performance or health status. The operation should also define the "investigation trigger" for each value – either a change in percent (%) or pounds (lbs.) – that may indicate cattle health is affected or something changed on the operation; either needs further investigation. Recording this information establishes the feedlot-specific "normal" so that when cattle are monitored for FMD, "abnormal" can be identified early. Production parameters and cattle health change over time.

Production parameters include feed consumption, lameness, morbidity, and mortality

Step 4: Monitor for Disease in your Animals

Observe - Learn how to recognize when animals look "off" due to FMD

Record - Prepare to keep records

Report - Develop a communication plan so everyone knows how to report abnormal findings during an outbreak

Sample - Work with your veterinarian to learn how to collect samples in the event they might be used to test for disease during an outbreak

If one or more animals has abnormal findings, they should be looked at more closely by the herd veterinarian. Some of the clinical signs observed with in FMD are expected to occur with a certain frequency in a feedlot due to a variety of causes other than FMD. However, early recognition of an FMD concern is important to the health of the cattle on your feedlot and neighboring operations.

Monitor -

- Temperature—check for fever (103-106° F)
- Eyes—look for dullness, sunken
- Nose—look for discharge
- Mouth—look for drooling or dropping food or lack of eating or drinking. If seen, examine the tongue and cheeks for vesicles or erosions and watch for smacking of the lips and teeth grinding
- Feet—look for signs of lameness. If seen, look between toes and around coronary band for changes (pale white, redness, or vesicles/blisters)
- Abdomen—look for gut fill (not eating)



Figure 4. Secure Beef Supply Source: DOL Staff

NATIONAL ANIMAL DISEASE PREPAREDNESS AND RESPONSE PROGRAM (NADPRP)

Brenee Peterson, DVM

The Montana Department of Livestock (MDOL) received a grant earlier in the year called the National Animal Disease Preparedness and Response Program (NADPRP). This grant will be utilized by MDOL to formulate a communication plan for the state of Montana if a foreign animal disease (FAD) enters the United States. At the national level there is a plan in place that if a FAD entered the United States, there would be a stop of movement of animals for at least 72 hours. The goal for the 72- hour stop movement is to try and minimize the spread of disease. Given that the movement of animals can affect many individuals and organizations MDOL is hoping to hold multiple discussions across the state to get a better understanding of some of the concerns and identify solutions to challenges that may be encountered. Input from these meeting will be utilized in the communication plan and will be tested with a tabletop discussion once complete. MDOL is looking to engage producer groups, state and federal cooperators, and or veterinary community in this process. If you or someone you know is interested in attending a discussion, or if you are interested in a meeting in your community, please contact Dr. Brenee Peterson at 406-444-2939 or brenee.peterson@mt.gov. a

FEEDER HEIFER IDENTIFICATION

Heidi Hildahl, DVM, PhD

Since 2013, the Montana Department of Livestock (MDOL) has required that all sexually intact animals entering Montana have official identification (ID) with exemptions for calves at side and animals to approved tagging sites. This requirement was adopted as Montana moved away from requiring animals entering Montana to be official vaccinates for brucellosis. MDOL recognized the potential decrease in traceability with fewer imported animals officially identified.

With the transition to RFID tags as the only approved form of official ID, the limited supply of no-cost tags and the cost and availability of purchased tags has brought a lot of focus and pressure on the movement of feeder heifers. North Dakota removed their requirement for identification of heifers for feeding in early December and MDOL received multiple calls regarding shipments of feeder heifers coming from North Dakota into Montana.

As a result, a discussion was held at the December Board of Livestock (BOL) meeting and the Board agreed that an allowance for heifers in feeding channels was appropriate. As a state with a substantial tuberculosis (TB) investigation in its recent history however, the discussion also included a gradual approach to lifting the requirement and how to ensure that animals intended for breeding are not misrepresented. The final decision allows feeder heifers from North Dakota ONLY to enter Montana without official ID. For animals that enter through livestock markets, market veterinarians will have a critical role in ensuring breeding females are identified appropriately. For animals that move on certificates of veterinary inspection (CVIs), MDOL will work to obtain local verification from Brand Investigators and local veterinarians. This step ensures that cattle entering Montana are indeed feeder heifers and not intended for breeding or other purposes, maintaining compliance with state regulations. The exemption will be revisited at a future board meeting for reevaluation. a

Contact Information:

Tahnee Szymanski, DVM
State Veterinarian, Administrator
(406) 444-0782
tszymanski@mt.gov

Brad De Groot, DVM, PhD
Brucellosis Veterinarian
(406) 444-3374
bradley.degroot@mt.gov

Heidi Hildahl, DVM, PhD
Supervisory Veterinarian
(406) 444-5214
heidi.hildahl@mt.gov

Brenee Peterson, DVM
Program Veterinarian
(406) 444-2939
brenee.peterson@mt.gov

Montana Veterinary
Diagnostic Laboratory (MVDL)
(406) 994-4885
mvdli@mt.gov

Import Office
24/7 Reporting/Permit Line
(406) 444-2976

www.liv.mt.gov

We're on the web:



Email: livpermits@mt.gov

Fax: 406-444-1929

Phone: 406-444-2976

Return Service Requested

Helena, MT 59620-2001

P.O. Box 202001

Animal Health Bureau

Montana Department of
Livestock