STOCK QUOTES

Animal Health Newsletter

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

STATE VETERINARIAN NOTES

Tahnee Szymanski, DVM

With fall herd work upon us, brucellosis is never far from our minds. The Department is currently working through herd testing for three brucellosis affected Designated Surveillance Area (DSA) herds while also working to increase producer and veterinarian understanding and compliance with Montana's brucellosis program requirements. As we work through our annual evaluation of compliance with DSA requirements (see pg. 3), some common issues and feedback are being encountered. One point is a lack of clarity on which animals require testing and what standing exemptions exist. The second is the confusion that ensues when a state of destination indicates a brucellosis test is not required for movement. As a reminder, this is what Montana has been working towards. A strong program that is broadly accepted with no additional requirements from other states. Such acceptance of our state program means producers only need to comply with our state regulations, which means that even when a state of destination does not require a brucellosis test, our program may. In the coming months, we hope to engage in increased communication with producers and veterinarians in the DSA to gather feedback, provide updates, and provide a refresher on program requirements.

As we continue to navigate a Federal shutdown that is slightly different than years prior, we are down one individual in the Montana Veterinary Diagnostic Laboratory's (MVDL) serology section. At a time of year when submission volume is high, MVDL is working to prevent any delay in turnaround times, including cross training and sharing personnel between sections. To safeguard against any potential disruptions, veterinarians should allow an additional day or two for brucellosis testing for scheduled movements.

One reason that MVDL can manage rapid turnaround times on brucellosis tests is automation of a portion of the testing process. With the recent discontinuation of the 4.5 ml Sarstedt from Monovette, MVDL has worked to have an assortment of racks to accommodate variable tube sizes. However, MVDL does not have the capacity to accommodate all tube sizes. At the time, the preferred tube for brucellosis submissions is the 4.0 ml Sarstedt. This tube is shorter and wider than the 4.5 ml. The lab does not have racks that will accommodate the 9.0 ml Sarstedt tubes and will have to process any samples in these tubes manually. Other glass/plastic tubes can work, however, MVDL requests these tubes be at least half full. Generally, tall and slender tubes will be more problematic. If you have any questions regarding tube choice, please contact serology at MVDL.

A final laboratory related topic is the transition to the new facility in Bozeman. Currently, the transition is slated to begin in April 2026. With the transition to a larger facility, there is an opportunity for increased test offering at MVDL. If there are services that would be of value to your practice in Montana that you would like to see the lab offer, please do not hesitate to reach out to Dr. Greg Juda, MVDL Director, or myself.

The last two months have brought un uptick in disease activity on the landscape that has kept staff busy. West Nile Virus, rabies, equine infectious anemia (see pg. 4), brucellosis, highly pathogenic avian influenza (see pg. 3), and strangles, to name a few. Private veterinarians played a part in all these diagnoses. From recognition of clinical signs, performance of diagnostics, disease reporting, and on the ground cases management, our work would not be possible without the work you do. Thank you for your commitment to keeping the livestock and animals of Montana healthy. Your work sustains a substantial industry in the state as well as keeps our human population healthy.

This week an offer was extended for the Department's open program veterinarian position. Beginning December 1, we will be back to full staffing for veterinary capacity for the first time in my tenure as the State Veterinarian. Looking forward, I am excited to see how we can expand our capabilities and move forward on work and projects important to our industries. ¤

INSIDE THIS ISSUE

EMERGENCY RESPONSE PLANNING PART 3: RESPONSE PHASE

Brenee Peterson, DVM

The third phase of the disaster management cycle is response. The response phase includes the actions taken during or immediately after a disaster and the coordination and management of resources. Planning for a response prior to an emergency can minimize confusion and chaos when a disaster occurs. When developing a response plan, it is important to include the actions that will be necessary during a disaster and a plan for communication between government agencies, local organizations, and the public. To assist with communication and coordination, response plans will often include the use of the Incident Command Structure (ICS).

The goal of a response to a Foreign Animal Disease (FAD) is to protect the food supply, the economy, and public and animal health while rapidly detecting, controlling and eradicating the disease. A response plan for FAD should include the resources needed for a response, a list of stakeholders with their responsibilities, and how coordination of a response will be performed.

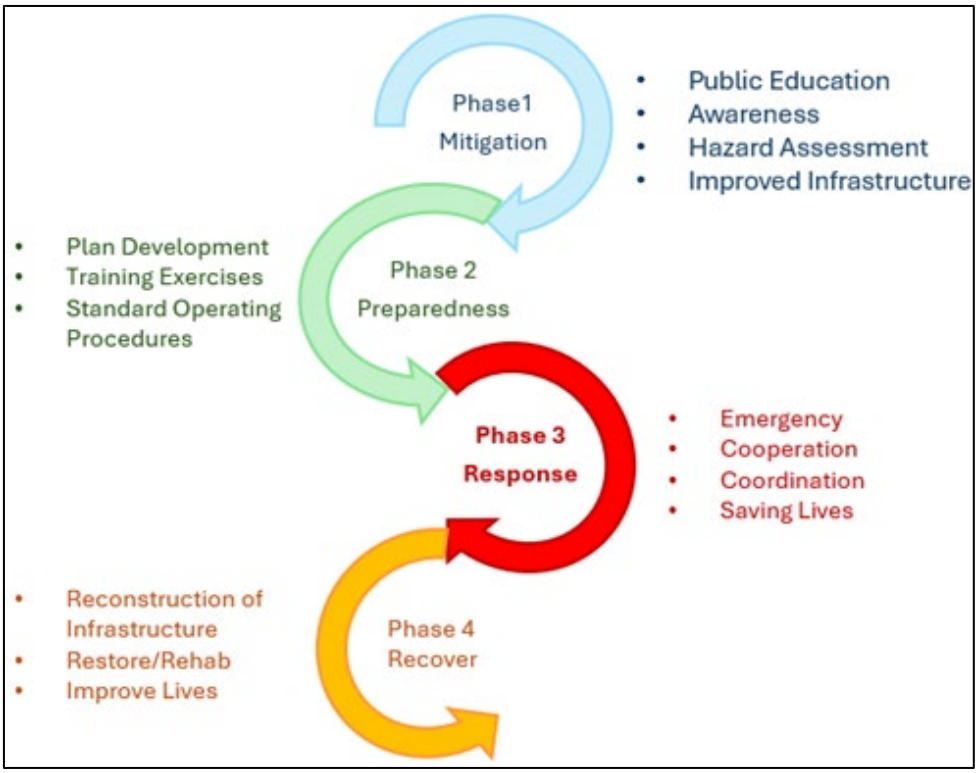

Figure 1: Emergency Response Phases. Source: DOL Staff

FAD response plans may vary based on the disease in question and include considerations of how the disease is detected and spread. Quarantines, movement permits, and enhancing the biosecurity protocols on a facility are all components that might be utilized in response to FAD.

Other response strategies include an epidemiologic investigation and how vaccinations or other animal level interventions may be implemented. A response plan also needs to take into consideration a plan for depopulation and disposal should those actions be necessary.

Memorandum of Understandings (MOUìs) are utilized heavily in response plans as they define the roles and responsibilities of agencies or other organizations during a response. MOUs should be developed prior to a disaster and can help foster relationships with response partners.

All in all, having a response plan in place can lessen the immediate effects of a disaster and minimize the disruption on a community. Resources for developing a response plan can be found on the National Alliance of State Animal and Agricultural Emergency Programs (NASAAEP) website, United States Department of Agriculture Animal and Plant Health Services (USDA-APHIS) FAD PReP book and on the Center for Food Security and Public Health website. ¤

BRUCELLOSIS UPDATES

Brenee Peterson, DVM

With the announcement of a detection of brucellosis in Beaverhead County earlier this summer, the Department would like to provide an update regarding the current epidemiologic investigation. The Department has been working with the affected herd, currently under quarantine, and expects to complete a whole herd test this fall. Adjacent herds have been notified, and a producer meeting was held in Beaverhead County to discuss testing going forward. Adjacent herds are not required to test at this time, but that may change pending the results of whole herd testing on the affected herd. With the fall pregnancy check season underway, the Department encourages producers to consider voluntarily testing if they have scheduled herd work as the affected herd may not complete testing until later in the season and we don't want anyone to miss an opportunity to test while cattle are in the chute anyway.

The Department is excited to announce that we are ahead of schedule and have started the 2025 Brucellosis Compliance Evaluation which involves reviewing cattle movements for Madison County. In the past, compliance was high for all the Designated Surveillance Area (DSA) counties, and we expect that to continue due to the hard work of both DSA producers and veterinarians. One thing we would like to remind everyone regarding testing is that testing is required for ALL sexually intact animals over 12 months of age. This includes bulls. Bulls are considered a lower risk for transmission of brucellosis when compared to females, but as we have recently encountered, bulls can still become infected, and it is important to include them on the testing schedule. We understand there may be confusion about testing regulations, and we are always happy to answer any questions. For operations with specific testing needs, please reach out and we will help you develop an individual management agreement for the operation.

Another exciting announcement is that the Department is part of a new brucellosis working group called the Brucellosis Research and Ungulate Health (BRUH). BRUH was developed in response to the delisting of brucellosis from the select agent list with the goal of developing effective tools to help manage the disease in both wildlife and livestock populations and hopefully provide brucellosis research opportunities. The first meeting had a large attendance of 41 attendees with a diverse group of individuals from federal and state partners along with laboratories and wildlife organizations. The next meeting is scheduled for later this fall. If you have any known research articles related to brucellosis or have any thoughts and ideas you would like to provide please contact Dr. Brenee Peterson either by phone (406-444-2939) or email brenee.peterson@mt.gov. ¤

AVIAN INFLUENZA UPDATE

Emily Kaleczyc, VMD, MPH

With shorter days, wild birds are on the move, and the United States has seen an uptick in highly pathogenic avian influenza (HPAI) cases in the last two months in both commercial and backyard flocks. Montana has also confirmed our first HPAI cases of the fall season. The HPAI virus is typically spread by wild waterfowl, but other wild birds can also carry the virus. When infected wild birds are present, they deposit large amounts of virus in the environment and pose a risk to domestic poultry. While ducks and geese may or may not show many clinical signs when infected with HPAI, the virus causes high levels of morbidity and mortality in chickens and turkeys. Sudden death may be the first sign of an infection.

HPAI infections this fall are an ongoing part of the outbreak that started in Spring 2022. The current predominant strain, commonly referred to as D1.1, has also caused two spillover events into dairy cattle (in Nevada and Arizona) as well as several cat and human cases nationally. As best we can tell from the genetic and epidemiological information in the dairy spillover cases, the virus made the jump once between birds and cattle in each instance but then developed the ability to transmit easily cow to cow and spread between local dairies. HPAI viruses that have spread in cattle retain the ability to cause devastating infections in domestic poultry. Cats have been infected on affected dairies as well as by consumption of raw food diets containing infected poultry products. Although the risk to the public from HPAI remains low, poultry owners and those working in heavily contaminated environments on poultry or dairy farms are at increased risk for infection.

Knowing that HPAI is still active in wild bird populations is a good reminder that poultry owners should increase biosecurity and keep wild birds away from domestic poultry. This can mean keeping birds indoors, keeping food and water for poultry in areas that are inaccessible to wild birds, and using dedicated footwear and equipment when accessing poultry housing. All sick poultry should be reported rapidly to the Department of Livestock (DOL) by calling 406-444-2976. ¤

EQUINE INFECTIOUS ANEMIA UPDATE

Emily Kaleczyc, VMD, MPH

At the end of August, the Department of Livestock (DOL) received confirmation of an equine infectious anemia (EIA) positive horse in Musselshell County. The positive horse, an older gelding, was tested prior to a routine movement out of state and was not showing any clinical signs at the time he was tested. The investigation into this horse's history is ongoing, and DOL is working to identify other owners and locations where the horse may have lived prior to detection. DOL has not been able to identify any previous EIA testing for the positive horse or any documents proving when he might have entered Montana. Multiple previous owners of the horse have been contacted, and any horses identified as being in contact with the positive horse are being tested. Of the more than thirty horses tested so far, no additional positive horses have been identified, and the positive horse has been euthanized. This investigation is an illustration of the challenges in horse traceability and a good reminder that proper documentation (county line brand inspections, lifetime brand inspections, interstate certificates of veterinary inspection (CVIs), etc.) is crucial to identifying horses that might be exposed to infectious diseases or require testing and follow-up.

Cases of EIA in Montana are uncommon, and prior to this investigation the most recent positive was detected in 2017. National efforts to control EIA began in the 1970s, and today the national prevalence is 0.0004 percent (USDA 2025). EIA is a viral infection of equids that can cause fever, anemia, jaundice, thrombocytopenia, depression, petechia, epistaxis, edema, depression, tachycardia, tachypnea, and death. Infected horses may also not show any clinical signs for extended periods of time. There is no vaccine or treatment, and once infected horses remain infected for life. The natural method of transmission is mechanical movement of the virus via biting flies such as deer flies and horse flies that take a larger blood meal and might feed on multiple horses in quick succession. Depending on the amount of virus a horse receives, it may take up to 60 days for horses to seroconvert and test positive after an exposure to EIA.

Historically in the United States, horses at increased risk of EIA infection were those in undertested populations; especially in hot, humid climates with large numbers of biting flies. In the last few years, however, the most at-risk group of horses has changed, and it is now those horses associated with Quarter Horse racing at unsanctioned tracks. This change is due to a rise in iatrogenic transmission with the use of contaminated needles, syringes, and other equipment. Another increasingly common group of cases are associated with horses imported illegally from Mexico where the disease remains endemic. Additional recent high profile EIA cases were associated with a Texas veterinary hospital that had accidentally contaminated a multidose drug vial. <u>Iatrogenic transmission is an efficient way to spread EIA because the amount of blood potentially transferred in the hub of a contaminated needle is 100-10,000 times more than the amount of blood typically transferred by a biting fly</u>. With the new at-risk populations of horses, it is also becoming increasingly common to see co-infection with equine piroplasmosis; testing for both diseases is warranted in horses with compatible clinical signs or histories that might indicate contact with unsanctioned racetracks or illegal importation.

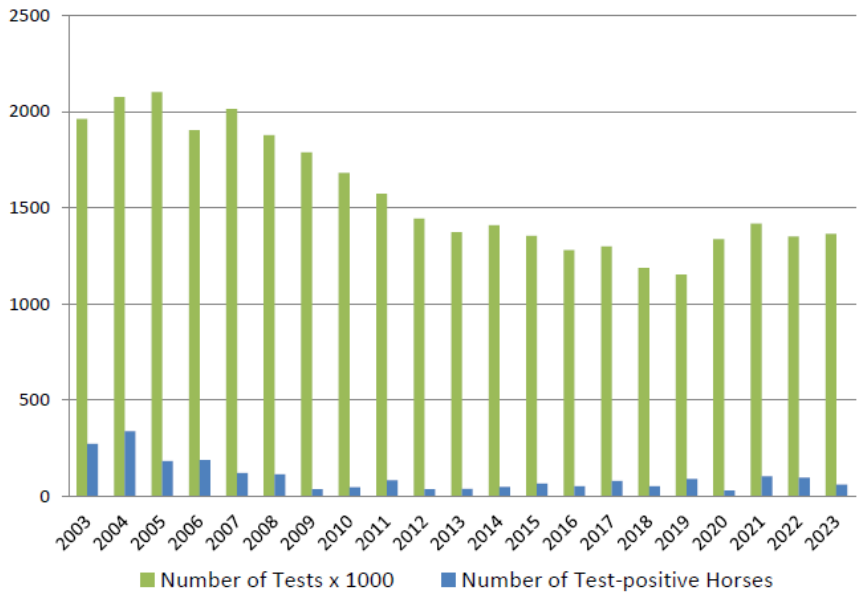

Figure 2: Reported numbers of EIA test and positive cases in the United States. Source: USDA.

Because no vaccine and no treatment exist, testing is the best method available to control the spread of EIA. Testing must be conducted by a level II United States Department of Agriculture (USDA) accredited veterinarian and submitted on approved forms. There are many laboratories approved to conduct the EIA ELISA, which is a sensitive screening test. Veterinarians should be aware that some false positives are expected on the ELISA and that all non-negatives must be followed up with an AGID (traditional Coggins test) at the National Veterinary Services Laboratory (NVSL) in Ames, Iowa. If a horse has a non-negative ELISA for EIA, all equines on the premises will be quarantined until NVSL has the final result. This means that veterinarians should conduct all EIA testing well in advance of any planned horse movements to allow for follow-up if necessary. Additionally, if any horses might have originated in Mexico, other foreign countries, or in states where microchipping of horses is common veterinarians should scan horses for a microchip at the time that they draw blood for testing. ¤

ELECTRONIC SUBMISSION

Leslie Doely

RFID readers have many benefits over handwriting or typing official identification (ID) during cattle handling, chief among them safety and accuracy. Reader technology continues to advance, with some readers now able to scan IDs directly into a smartphone. But though the readers have improved, the process of incorporating that electronic list of IDs into a laboratory submission or brucellosis vaccination form can still be challenging. Most submission forms require copying and pasting animal information, including official ID into a form, usually from a .csv or .xlsx file. Here are a few tips for handling a list of animal IDs in Microsoft Excel:

- When using copy/paste, always paste values to avoid issues with formatting.
  - After copying your data, right-click the destination. Under “Paste Options”, choose “Values(V)”.
- When your RFID tag number is displayed in scientific format (example: 8.4.0003E+14):
  - Select the cells (or column) you wish to change, select the “Number Format” drop-down, and choose “Number”.
  - Remove extra decimals by clicking the “Decrease Decimal” button under the format drop-down.

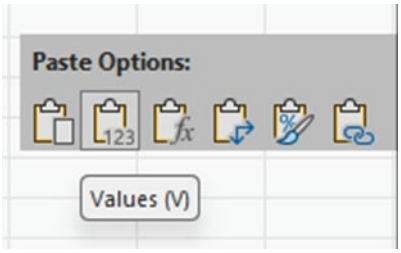

Figure 3: Values (V) Past Option. Source: DOL Staff

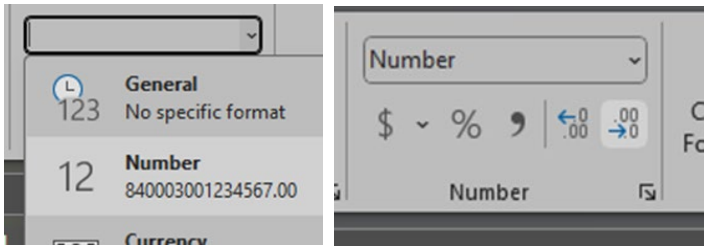

Figure 4: Number Format Option. Source: DOL Staff

- Avoid copying an entire column; instead, select, copy, and paste only those cells that have data.
- For an easy quality control measure, check for duplicates by selecting the tag column, then click “Conditional Formatting” → “Highlight Cell Rules” → “Duplicate Values”.
  - Click “OK” on the dialog box that appears, and any duplicate IDs will highlight red.
- For hand-entering IDs into excel:
  - Combine cells with the same beginning of a tag using =”cell”&”cell” formula.
    - Type the repeating portion of the tag in the first column
    - Use the second column to type the unique part of the tag
    - In the third column, type an equal’s sign, then click the first cell, type an “&” sign, then click the second cell. This formula can be auto filled to the bottom of your data.
    - For numbers with a leading zero, use an apostrophe before the number.
- Autofill is a useful feature to either copy cells in bulk or create a sequence of cells quickly.
  - Type the first cell and click enter.
  - Move your mouse over the lower righthand corner of the cell until your curser changes to a black plus.
  - Click and drag down to the desired end point of your data.
  - Release your mouse.
  - Click the small box that appears at the bottom of your data and designate either copy or fill series.
- Whether using hand-entered or RFID reader data, ALWAYS spot-check IDs and animal information at the beginning, middle, and end of your final form.
- When submitting test or vaccination data, be sure to email a copy of the excel document to ecvi@mt.gov to ensure that electronic official ID is captured. Please contact us at 406-444-2976 for assistance with submission of electronic ID. ¤

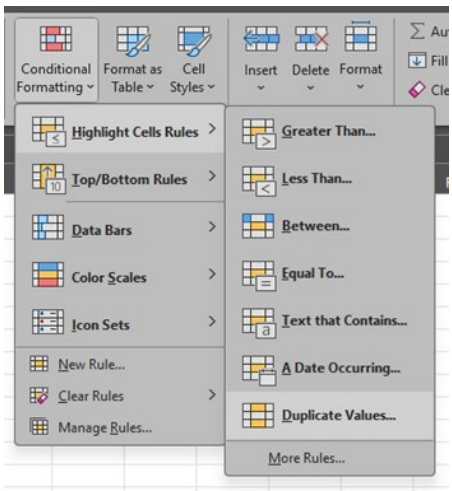

Figure 5: Duplicate Values in Excel. Source: DOL Staff

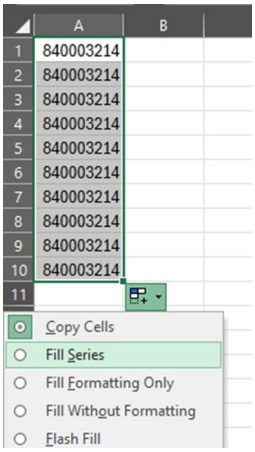

Figure 6: Fill Series in Excel. Source: DOL Staff

MONTANA MILK SURVEILLANCE PROGRAM

Brenee Peterson, DVM

The Department of Livestock (DOL) has been monitoring Highly Pathogenic Avian Influenza (HPAI) throughout the summer in both poultry and milk. With continued monitoring the Department has detected three premises with HPAI in poultry. To date Montana has not detected HPAI in milk by participating in the National Milk Testing Strategy (NMTS) since December of 2024. We are excited to announce that Montana was able to move to the Stage four category of the National Program. NMTS was implemented to eliminate the HPAI virus in the dairy industry across the United States. NMTS has five stages with the fifth stage being the highest stage demonstrating that HPAI has been eliminated in the United States Dairy cattle. Montana's Stage four category demonstrates that our dairy herds in the state are unaffected. Currently, 45 states participate in the NMTS with 30 states being considered unaffected with another 14 states provisionally unaffected. California, Arizona, Nevada, Texas, Idaho, and Nebraska continue to be states affected by the dairy variant of HPAI. Going forward, Montana will continue to monitor milk samples monthly with silo testing. More information about the NMTS program can be found here. ¤

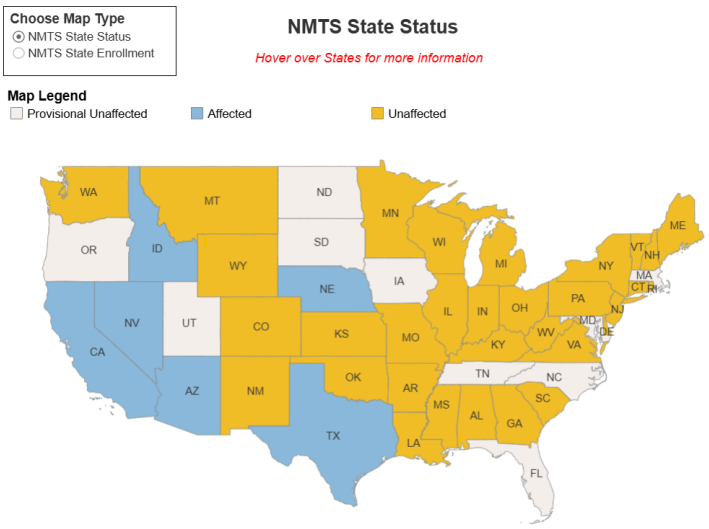

Figure 7: NMTS State Participants. Source: USDA.

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