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

It has been a busy spring in Helena with the Montana Legislature in session and ongoing High Path Avian Influenza (HPAI) activity nationally. Despite some ongoing challenges, there are several high points worth mentioning.

With an administration change at the national level, there has been uncertainty regarding the continuation of several federal programs, including the ongoing availability of federal funding to conduct brucellosis, avian influenza, and other zoonotic disease work. For 2024, our office saw a \$400,000 reduction in federal funding. This reduction forced us to scale back on support of the National Poultry Improvement Plan (NPIP) program, purchase of traceability infrastructure, and support of public health efforts at fairs and exhibitions. Up until a few days ago, we did not know if we would receive funding for 2025 or at what level, a potential loss of an additional \$700,000 in federal funding. Fortunately, with the passing of a full year continuing resolution nationally, we have been approved for 2025 funding and early indicators show no additional cuts. To offset the previous cut, one decision package submitted to the legislature moves the salary of our emergency preparedness veterinarian from federal funding to per capita fees. This request is progressing through the legislature, and we expect to be finalized in House Bill 2. The fund shift and the receipt of federal funding for 2025 will allow the Department to be more proactive in outreach efforts and support of disease programs.

The transition to electronic tags for cattle and domestic bison and the national shortage of RB51 has been a significant source of stress for producers and veterinarians. While the backorder is expected to stretch to the end of April, two things that should help get heifers Bangs vaccinated are one, the extension of the age limit for calfhood vaccination to 14 months of age and two, the receipt of 120,000 orange RFID tags to our office (see page 2). Additionally, if your allocation of no-cost RFID tags does not meet all your needs but you are unable to obtain orange RFID tags, heifers can be vaccinated with any color 840-RFID tag. Orange RFID tags however can ONLY be used for calfhood vaccination. One potential contributor to the duration of the vaccine supply shortage is panic buying. If you find yourself with more doses than heifers under your care and would be interested in assisting with vaccine redistribution, please contact our office at (406) 444-2976. As a reminder, it is recommended that heifers are not bred until 4-6 weeks after receiving the vaccine.

Finally, as HPAI activity increases with the spring migration of waterfowl and we continue to see detections in mammalian species (see page 4), how we respond to the detection of foreign animal diseases is an ongoing dialog. Emergency preparedness is a necessary task that can never be checked off the to do list. An exciting step forward in our preparedness activities kicked off in March and will be ongoing over the next year as the Department works to engage industry and partner agencies on the development of a state specific communication plan to address a national stop movement order in case of a detection of a high consequence foreign animal disease (FAD) such as Foot and Mouth Disease (FMD) or African Swine Fever (ASF). I encourage you to watch for a meeting near you and attend. We had 4 veterinarians attend in Livingston and they provided valuable input to the discussion. Upcoming dates in April include Dillon (17th), Choteau (22nd), and Great Falls (24th). ¤

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WHAT'S NEW

- No-Cost RFID Tag Allocation, *p. 2*
- HPAI Biosecurity Audits, *p. 4*

Heidi Hildahl, DVM

No-cost RFID tags: The availability of RFID tags continues to be a pinch point for veterinarians. With the recent passage of a full year "continuing resolution" for 2025, United States Department of Agriculture (USDA) now has its full financial allocation for the year, with funding to order five million tags. This is a decrease from the prior year's eight million tags, meaning that allocations of no-cost tags will also decrease. <u>Montana's current allocation for 2025 is 120,000 tags</u>, down from 193,000 in 2024.

Montana Department of Livestock (MDOL) elected to receive all 120,000 tags for 2025 as orange brucellosis vaccination tags and for the first time, <u>distribution of these tags will be handled by our office</u>. MDOL has received all requests previously submitted to USDA and will be working to distribute tags in the coming days. <u>Because of the limited supply of tags for 2025 and to make tag distribution as equitable as possible, we will be using previous vaccination tallies to determine how many tags veterinarians are eligible to receive. Veterinarians that are new to practice in Montana will be eligible to receive up to 1,000 no cost tags to assist with establishing a tag use history. To get on the list to receive an allocation of free tags, please call MDOL at 406-444-2976 or email <u>livpermits@mt.gov</u>.</u>

Official Identification of DSA Heifers: To provide some additional relief regarding tag shortages, MDOL will allow <u>2025 born Designated Surveillance Area (DSA) heifers that are less than 12</u> months of age and moving for feeding purposes only to be identified with a NUES tag. If animals are going for any other purpose and therefore require a brucellosis test, an RFID tag must be applied. The primary purpose of tagging feeder heifers is to tie the animal back to Montana's DSA. We believe this can be accomplished through the continued use of NUES tags. This policy will be re-evaluated annually.

Electronic data capture: MDOL is working to increase the electronic capture and transmission of traceability data such as regulatory testing and calfhood vaccination records. USDA has been

working on the modernization of their Mobile Information Management (MIM) software to make electronic capture and reporting easier, including the development of an application that will run on wireless tablets or smart phones. The software can be used for brucellosis and tuberculosis testing, brucellosis vaccination, and to generate a herd inventory. USDA has recently announced that the USDA MIM app is now available on Google for Android devices (Figure 1). This is great news as Android devices are cost-effective and have ample tech support. The MIM app for iOS is expected to be available this summer.

Figure 1. MIM App QR Code Source: DOL Staff

The app includes fillable forms that streamline the submission of electronic data. Previously, to utilize the MIM software, a handheld PDA (Archer) was required and retrieving data off the device was

often problematic. Use was heavily concentrated around Montana's DSA. The ability of the app to run on a wide range of Android devices should make the software more accessible to veterinarians.

In 2025, we will once again have funding available to offset the cost of ADT infrastructure. This funding helps offset the cost of RFID readers, computers, printers, or Android devices to run the new MIMS app on. Independent of using the MIM application, tag data can also be captured with just an RFID reader and downloaded to your computer for further application. Depending on the RFID reader this can be done by either connecting the reader to the computer (hardwired) or downloading the tags to a USB flash drive. The raw XML files will have RFID data that can be copied and pasted into fillable forms on your computer. Completed forms can be emailed to MDOL instead of printing and mailing. Electronic submission allows data to be captured/stored in an easily searchable format. For more information on MIMS or other electronic records, including vaccination certificates and laboratory accessions, please contact Dr. Heidi Hildahl at (406) 444-5214 or heidi.hildahl@mt.gov. ¤



FISCAL YEAR 2023 BRUCELLOSIS COMPLIANCE

Jacqueline Cima & Brenee Peterson, DVM

Montana Department of Livestock (MDOL) staff and veterinarians recently wrapped up the Fiscal Year 2023 (FY23) Designated Surveillance Area (DSA) compliance assessment based on brand inspection data for Gallatin and Park counties. Historically, brucellosis testing compliance was done at the herd level by comparing the number of animals tested in a year to the total herd size. Testing 15% of the herd or greater was figured to correspond to compliance with DSA testing requirements. While there were certainly merits to this method of compliance work, it failed to account for industry nuance such as herds that do not leave the DSA or only move animals directly to livestock markets and therefore did not need to test animals. Additionally, as the DSA boundary expanded to include more herds, an annual compliance assessment of all DSA herds became an unfeasible task.

Brucellosis testing compliance is now done based on individual movements of animals by evaluating brand inspections on three criteria:

- Do animals originate from the DSA?
- Are animals brucellosis test-eligible?
- If test-eligible, were they tested within the appropriate time frame?

This deep dive into individual movements of animals is done on a rotating basis for all four DSA counties: Beaverhead, Madison, Gallatin and Park. FY23 marks the last year of this cycle through the counties which started in FY21 with Beaverhead County, followed by an evaluation of Madison County in FY22, and finally both Gallatin and Park counties in FY23. MDOL is happy to report that <u>compliance with DSA regulations has been high for all counties with 90% or more inspections being compliant</u>.

	Gallatin County	Park County	FY23 Total
Number of Inspections Evaluated	811	209	1020
Head Count of All Inspections	11,808	4,906	16,714
Number of Noncompliant Inspections	42	5	47
Head Count on Noncompliant Inspections	756	39	795

Figure 2. Evaluation of the number of compliant and non-compliant county inspections FY23. Source: DOL Staff

Brand inspections found to be noncompliant require follow up by MDOL staff. In FY23, most follow up consisted of educating producers about DSA regulations and developing management agreements (Figures 3 and 4). <u>Management agreements</u> may include variances to DSA requirements that do not increase the risk of brucellosis spread and help to minimize the impact of the program on a producer's operation. It is not uncommon to identify producers who are operating under outdated management agreements, in particular for seasonal use DSA producers. If you have clients that use the DSA seasonally, they would likely benefit from the development of a management agreement. You or your client can contact Dr. Brenee Peterson at (406) 444-2939 or <u>brenee.peterson@mt.gov</u> to learn if a variance would benefit seasonal movements and the timing of testing.

Type of Noncompliance	Number of Inspections	Number of Animals
No test- animals went to feedlot	1	255
No test- bulls	13	25
No test for private sale out of DSA	14	157
No test for private sale within DSA	12	221
No test to leave DSA- stayed in state	12	118
No test to leave DSA- tested on return	0	0
No test to leave DSA- left state	3	360

Figure 3. Comparison of the number of inspections and animals to the cause of non-compliance. Source: DOL Staff

MDOL attributes the high compliance rate to the diligent efforts of DSA producers and their veterinarians along with the meticulous records produced by local brand inspectors. It is because of this hard work that Montana has maintained a strong brucellosis program which in turn minimizes additional requirements in our movement and trade of animals. ¤

HIGH PATH AVIAN INFLUENZA (HPAI) UPDATES

Tahnee Szymanski, DVM

Highly pathogenic avian influenza (HPAI) cases continue across much of the United States as Montana recently picked up our first detection in 2025. The affected backyard flock in Gallatin County lost 6 birds of 18 in a roughly 12-hour period. The flock was designated as WOAH Non-poultry because there were no sales of poultry or poultry products from the premises. This designation does not require depopulation. However, because of the owners' concern regarding human health as well as the health of the other animals on the premises, the flock was depopulated. In February, the Centers for Disease Control updated the risk status of the HPAI virus for populations in contact with potentially infected animals or

contaminated surfaces or fluids to Moderate to High (Figure 4). The risk assessment is available here: <u>https://rb.gy/vvrhw9</u>. Please note the risk to the general population remains low.

While much is the same regarding response to HPAI and the spread of the disease on the landscape, there is also a lot of new information to be aware of.

New Spillover Events: Previously, detections of the B3.13 genotype of the virus in dairy cattle were attributed to a single introduction from wild birds to cattle in the Texas panhandle region and subsequent lateral spread of the virus through the movement of infected animals and fomites. In February, the D1.1 genotype was detected in dairy cattle in Nevada and Arizona. As a reminder, both genotypes are

Population	Risk	
General U.S. population	Low	
Populations in the United States in contact with potentially infected animals or contaminated surfaces or fluids	Moderate to High	
Confidence level in assessment Moderate - Confidence level in assessment		

Figure 4. Risk posed by HPAI viruses. Source: CDC

from the H5N1 Eurasian H5 2.3.4.4b clade. Both the Nevada and Arizona detections represent new introductions of the virus into dairy cattle. The detections were found by milk surveillance testing and raise concerns that the virus may have developed further mammalian adaptations.

Since December, Montana has been conducting monthly surveillance of milk from our state's licensed dairies with all testing to date negative for HPAI. The detections of HPAI through milk surveillance in Nevada and Arizona demonstrate the value of milk surveillance in early detection of HPAI infections in dairy cattle. We are currently working with our dairy industry to increase testing frequency as the risk of HPAI increases with the spring migration of birds underway.

Detection in Additional Species: HPAI has also been detected in household and large sanctuary cats. These detections have been attributed to the interstate sale of FDA regulated raw pet food, raw milk consumption, and human food products fed to cats, such as donated raw product. Both the B3.13 and D1.1 genotypes have been detected in cats. While cats are a dead-end host for the virus, these detections demonstrate potential for the virus to be present in both the human and pet food supply. As a result, both United States Department of Agriculture (USDA) and Food and Drug Administration (FDA) have taken action to address these risks. Poultry moving to slaughter from a state with active cases are required to have a negative HPAI test within 72-hours of shipment.

New Control Measures: USDA has announced several new measures to combat HPAI, including the use of <u>biosecurity</u> <u>assessments and cost-sharing to address identified biosecurity deficits in poultry operations</u>. The new assessments are called the Biosecurity Incentive-Focused Assessment (BIFA) and the Wildlife Biosecurity Assessment (WBA) and will be available to flocks of 500 birds or more.

BIFA is a general biosecurity assessment to review structural and operational biosecurity plans and practices. The WBA has three parts: wildlife surveys, hazard surveys, and direct control. This is a continuous improvement program with the assessment conducted over a 3-month process and requires several in-person visits. The first assessment report is provided at the 6-month mark and annually thereafter. Only APHIS WS can conduct these assessments.

To request an assessment, producers can email poultry.biosecurity@usda.gov, call 844-820-2234, or click on the "Request an Assessment" at https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-poultry. Once an assessment or audit is complete, USDA will share up to 75 percent of the costs to fix the highest-risk biosecurity concerns identified by the assessments. If you have interested producers or would like additional information, you can also contact Dr. Heidi Hildahl at (406) 444-5214 or <u>heidi.hildahl@mt.gov</u>. ¤

MONTANA SECURE BEEF SUPPLY PLANNING BONUS STEP: CONTINUITY PLANNING

Merry Michalski, DVM

Continuity of business (COB) for the beef industry during a large-scale disease outbreak revolves around the ability to move animals to slaughter and processing facilities and between production phases. Regulatory officials must balance the risk of allowing the movement of animals against the impact of not allowing movement.

The Secure Beef Supply (SBS) Plan provides a beef premises, with no evidence of Foot and Mouth Disease (FMD) infection and located in a



Figure 5. Secure Beef Supply Source: DOL

regulatory Control Area, the structure for a workable business continuity plan that is credible to responsible officials. Participation in the SBS Plan is voluntary.

Having the SBS Plan guidance available and implemented, when possible, prior to an FMD outbreak enhances coordination and communication between all stakeholders. The intent is to speed up a successful FMD response and eventually enable the issuance of movement permits after the extent of the outbreak is understood. In other words, when the initial stop movement order associated with an FMD detection is lifted, producers with SBS Plans will have a leg-up on resuming the movement of animals because the foundational work they have done will provide assurance to our office that their premises is low risk. This planning supports COB for cattle producers, transporters, packers, processors, and allied industries who choose to participate.

If you have producers who may be interested in working to develop a SBS Plan, please reach out to Dr. Brenee Peterson at (406) 444-2939 or <u>brenee.peterson@mt.gov</u>. ¤

EMERGENCY RESPONSE PLANNING PART 1: MITIGATION

Preparedness Pr

Brenee Peterson, DVM

To effectively control a foreign animal disease (FAD) outbreak, it is crucial to be prepared and have a response plan in place, both at the ranch level and state and national levels. The process of preparing for a disaster follows the concept of emergency management. Emergency management is an ever-evolving process and can be broken down into four basic phases (Figure 6): mitigation, preparedness, response and recovery. Mitigation and preparedness typically occur prior to an event, while response and recovery happen after an event.

Mitigation, the first step in preparation, includes actions that reduce or eliminate the impact associated with an outbreak (see SBS planning article above). For mitigation to work, a risk assessment must be performed. The assessment allows officials to determine ways to mitigate animal disease via biosecurity measures. This can also determine how to improve housing conditions, water quality and manure management. Another important consideration for disease mitigation is vector control, wildlife control and developing vaccine protocols for preventing disease.

Figure 6. Phases of All-Hazards Emergencies Source: DOL Staff

As producers use mitigation strategies to protect their operation, they

can turn to the next step of preparedness which directly focuses on the plans of responding to a threat. Stay tuned for the next step of response planning, preparedness, in the next newsletter. ¤

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ECHINOCOCCUS

Brenee Peterson, DVM

Echinococcosis is a zoonotic tapeworm infection that is reportable in Montana. *Echinococcus granulosis* and *Echinococcus multilocularis* are the species of greatest concern for veterinarians and public health officials.

Within the Echinococcus lifecycle, *granulosis* has dogs and wild canids as the definitive host while *multilocularis* has cats, dogs and raccoons. Intermediate hosts are typically those in a predator/prey or scavenger/prey cycle with definitive hosts. The life cycle of Echinococcus granulosis, for example, begins with the adult worm residing in the small intestine of a dog and eggs shed into the feces. Eggs are then ingested by the intermediate host. Within the intermediate host, the eggs will hatch, forming an oncosphere in the small intestine. The oncosphere may penetrate the intestinal wall and migrate into various organs like the liver and lungs. Once in the visceral organs, the oncosphere develops into a cyst. The definitive host (dogs) becomes infected by ingesting organs that are contaminated with the cyst, completing the life cycle in 25-80 days. Humans can become infected by ingesting contaminated food or water or by improper handling of animal feces.

Echinococcus eggs can be visualized under the microscope but are the same size as Taenia tapeworm eggs. A definitive diagnosis requires further diagnostics like PCR. Most definitive hosts carry echinococcus asymptomatically. Intermediate hosts tend to have symptoms associated with the organ system affected. The treatment for definitive hosts is deworming. Intermediate hosts are more difficult to treat and may require long term anthelmintics and surgical resection. Prevention is therefore key in controlling infections. Prevention includes avoiding feeding wildlife or contaminated carcasses to pets, avoiding contact with wildlife, and providing an appropriate dewormer to at risk animals. Veterinarians and livestock producers should avoid cutting through cysts and consider sending them to the Montana Veterinary Diagnostic Laboratory (MVDL) for testing. Montana has received tracebacks from slaughter regarding echinococcus lesions in Montana origin livestock. ¤

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