



Stock Quotes: Animal Health Newsletter

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

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WHAT'S NEW

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State Veterinarian Notes

MOVING ON: With mixed feelings, I am writing my last Montana State Veterinarian update. I resigned my position effective July 3, 2023, to take on a new challenge in the private sector. If you're interested in taking a walk down memory lane, see pages 5-6 for some highs and lows of my tenure over the last 16 years.

BRUCELLOSIS: Department of Livestock (DOL) recently confirmed a brucellosis affected herd in the Designated Surveillance Area (DSA) of Madison County. Unfortunately, this small herd represents a couple firsts. Since the inception of the DSA in 2010, all brucellosis affected herds have been detected through voluntary whole herd testing which typically takes place in the fall as part of pregnancy testing and other herd work. Whole-herd testing has been so successful that Montana tests between 80-90% of the entire test-eligible inventory in the DSA on an annual basis. However, an early 2022 winter made fall testing more difficult, and the index cow was flagged through a positive market test this spring. I appreciate the testing performed by market veterinarians to maintain marketability for Montana cattle even with the brucellosis vector in wildlife.

The time of year for brucellosis detection is also new for us. Diagnosing *B. abortus* in a herd is always a challenge, however a fall detection allows for the smallest impact possible. In the fall, animals are already held close to home for winter and a test around calving is only a few months away which can allow the quarantine to be lifted in less than half a year. In this case, a spring diagnosis creates challenges for grazing turnout and extends the duration of quarantine until 2024 spring calving.

HIGHLY PATHOGENIC AVIAN INFLUENZA (HPAI): In one of the biggest surprises of 2023, national HPAI infections are dramatically lower than we anticipated. After the deluge of cases during last spring/summer, and a continuing trickle into fall and winter, we were bracing for a record number of infections in the backyard and commercial poultry premises in 2023.

One reason for the decreased cases in 2023 may be that wildlife have lower levels of virus 18 months into the outbreak. While still highly lethal to domestic poultry, this virus is likely following the path of COVID-19 where the virulence decreases over time in the host species (wild birds).

UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) PARTNERSHIP: USDA continues to be a valuable partner for Montana and provides nearly \$1M in grant funding to help with management of national priority diseases such as brucellosis, tuberculosis (TB), and avian influenza. Assistance from USDA field staff is also critical as USDA staff have assisted in brucellosis testing, foreign animal disease investigations, TB testing and following up on positive TB caudal fold tests. Please see the column by Dr. Beutelschies, USDA Montana Area Veterinarian in Charge, on page 3.

RABIES QUARANTINE: In mid-June, DOL placed a rabies quarantine on Powder River County following the detection of rabies in a terrestrial animal (skunk).

Applying a quarantine to an entire county is different from how quarantines are typically managed, however we do believe that these announcements raise awareness about the value of rabies vaccination which remains the cheapest, and most effective way to prevent transmission of this fatal disease.

Our office continues to get inquiries about rabies management and it's often helpful to first differentiate whether the issue is: a) a person exposed to a potentially rabid animal, or b) an animal exposed to a potentially rabid animal. Both of those scenarios have clear guidelines in the rabies compendium document by the National Association of State Public Health Veterinarians. ☒

By Martin Zaluski, DVM

USDA Veterinary Services Montana Updates

United States Department of Agriculture (USDA) Veterinary Services protects and improves the health, quality, and marketability of our nation's animals, animal products and veterinary biologics by preventing, controlling and eliminating animal diseases, and monitoring and promoting animal health.

USDA VETERINARY SERVICES PRIORITIES:

USDA Veterinary Services staff in Montana have been actively engaged and will continue to serve the United States as well as Montana Animal Health needs by focusing on the four primary mission objectives.

- The Investigation and response to any Foreign Animal Disease (FAD) suspect or incursion. Responding to Highly Pathogenic Avian Influenza (HPAI) and Vesicular Stomatitis Virus (VSV) outbreaks illustrates two of the most recent examples challenging United States animal health and trade.
- Support Veterinary Export and Trade Services (VETS) through the review and endorsement of export health certificates in the Veterinary Export Health Certificates System (VEHCS) and export inspections of facilities moving animal products for international trade. Montana Veterinary Services is dedicating a Montana Veterinary Medical Officer to endorse export certificates throughout the busy summer movement season. For more information please visit: <https://rb.gy/2uwig>.
- Support and staffing at the Federal port of Sweetgrass, Montana to facilitate live animal commerce to and from Canada. Veterinary Services Montana will be dedicating Veterinary Medical Officers and staff to support the busy summer and fall animal crossings into the United States from Canada. For more information please visit: <https://rb.gy/dux7m>.
- Various program work for Brucellosis, Bovine Tuberculosis (TB), Scrapie and Animal Traceability.

AFRICAN SWINE FEVER (ASF): Protecting the United States pork industry is a priority for USDA Veterinary Services in Montana. Montana Veterinarians will see outreach merchandise to emphasize awareness of ASF as well as trainings to become a Certified Swine Sampler.

African swine fever is a highly contagious and deadly viral disease affecting both domestic and feral swine of all ages. ASF is not a threat to human health and cannot be transmitted from pigs to humans. It is not a food safety issue. However, it is a serious economic disease that could affect our country's safe food supply.

ASF is found in countries around the world. More recently, it has spread to the Dominican Republic and Haiti. ASF has also spread through China, Mongolia and Vietnam, as well as within parts of the European Union. It has never been found in the United States – and we intend to keep it that way!

USDA's ASF program, Protect Our Pigs, provides the tools and resources veterinarians need to ensure everything possible is done to keep swine healthy and reduce the risk of spreading ASF. For more information please visit: <https://rb.gy/bq2zi>.

USDA RESOURCES AND STAFF: USDA Veterinary Services Montana has moved to a new physical location and can be found at:

USDA Veterinary Services Montana
1301 Elm St. Helena MT 59601

Please call 406-449-2220 with questions or requests.

Veterinary Services Montana Directory:

- ◆ Dr. Scott Beutelschies, Area Veterinarian in Charge Montana 406-594-2086
- ◆ Dr. Janet Hughes, Epidemiology Officer and Program Diseases 406-449-2220
- ◆ Ms. Yvette Leidorf, Animal Identification Coordinator and Tag ordering/information 406-449-2220
- ◆ Mr. John Bowden, National Veterinary Accreditation Coordinator (NVAP) 406-449-2220
- ◆ Dr. Emily Kaleczyc, Field VMO-North Central Montana 406-438-2930
- ◆ Dr. Glen Bailey, Field VMO-Western Montana 406-439-2900
- ◆ Dr. Clint Green, Field VMO-Eastern Montana 406-351-2441
- ◆ Dr. Tahnee Szymanski, Montana Emergency Coordinator 406-594-9075 ✉

By Scott Beutelschies, DVM

VS
Veterinary Services



Figure 1. USDA-Vet Services.
Source: aphis.usda.gov

Brucellosis Updates

Montana Veterinary Diagnostic Laboratory (MVDL) has run over 11,000 brucellosis tests since the February 15, 2023: beginning of this year's high-risk period for *Brucella abortus* transmission. Three tests have required additional diagnostic work to determine the herd statuses. One herd is brucellosis affected and the other two are not.

MADISON COUNTY AFFECTED HERD: Department of Livestock (DOL) first announced this infection May 15, 2023. This is the first affected herd identified by spring testing and the first infected cow detected by livestock market testing. The epidemiologic investigation is nearly complete and has confirmed that nearly all cattle having fence line contact with the affected herd have been brucellosis tested after the 2022 high risk period, coinciding with elk abortion season. The first whole herd test is complete, and no other cows have seroconverted. Because the infected cow's pregnancy was still intact at the time she was removed from the herd, she did not spread her infection within the herd. Additional whole herd tests will look for additional animals that may not yet have seroconverted.

BRUCELLOSIS CARD TEST REACTOR CLEARED IN TIME TO SELL: Serum from one cow among a couple dozen open replacement cows recently consigned for sale produced agglutination on a card test. The coordinated work of the market veterinarian, district investigator, and DOL staff confirmed the identity and completed follow up testing on the cow to determine that the card test reaction was precipitated by a non-*Brucella* agglutinating antibody. This testing was completed rapidly enough for the herd to sell in the sale to which they were initially consigned.

While the efforts of all involved cleared this particular cow before the end of the sale, this won't always happen when cows are consigned shortly before the sale. Consignors need to remember that non-specific card test reactions do occasionally occur. Whenever the potential of having cows held over to the next sale in an especially difficult economic hardship, consignors with test eligible cattle should consider presenting those early on enough to ensure time for follow up testing prior to the sale.

The two events also highlight the value of the

card test at livestock markets. The card test is rapid, sensitive, and specific enough to facilitate efficient commerce while protecting the cattle industry from the spread of brucellosis spilled over from wildlife. Since September 1, 2022 over 19,500 cattle have been brucellosis tested at Montana livestock markets with two positive card test results.

Importantly, MVDL confirms the accuracy of all negative card test results. Under the direction of the United States Department of Agriculture (USDA) field veterinarians, the Montana market veterinarians are conducting the card test at an observed specificity of approximately 99.995%, well above the published specificity estimates, and in this case have successfully prevented a near-term, pregnant cow from entering commerce.

STABLE FLUORESCENCE POLARIZATION ASSAY (FPA) SEROPOSITIVE TURNED COMPLEMENT FIXATION (CF) POSITIVE: Cows whose FPA values are positive, but whose Buffered Acidified Plate Antigen (BAPA) and Complement Fixation (CF) results are negative, typically return negative FPA values 30-60 days after the initial test. Recently, however, DOL encountered a mature cow whose retest FPA value remained nearly the same as the first test with a still-negative BAPA, but whose CF turned positive.

To facilitate herd management activities, the cow was sent to necropsy for tissue culture rather than holding the cow for additional follow up testing. Tissue culture determined that this cow was not brucellosis infected. While tissue culture can confirm the status of a questionable animal in about a month, follow up serological testing is generally a more cost-effective way to make that determination when the animal can be held for additional retesting.

EFFECTIVE SURVEILLANCE: While surveillance testing can occasionally produce difficult situations, it has so far detected the rare spillover cases soon enough to prevent them from creating problems outside of the DSA. DOL is grateful for your continued support ☘

By Brad De Groot, DVM, PhD



Figure 2. Brucellosis Card Test. Source: DOL Staff

Poultry Update

HIGH PATH AVIAN INFLUENZA (HPAI): The current Highly Pathogenic Avian Influenza (HPAI) outbreak began in February 2022 and continues to be a concern for the United States. Most recently, infections appear to be most prevalent in central and eastern states. However, cases nationally have been significantly less frequent. There were no confirmed reports of avian influenza infection in poultry in the United States between May 18, 2023 – June 21, 2023.

Montana's last 2 confirmed affected flocks were in January and April of 2023. Since the start of the outbreak in 2022, Montana has had a total of 82,675 poultry affected. Due to the commendable efforts in increased biosecurity from Montana producers along with continued surveillance testing by Department of Livestock (DOL), there have been few diagnoses of HPAI infection in 2023 compared to the same period in 2022. However, the risk for exposure to HPAI continues to be high because the disease is assumed endemic in wild migratory waterfowl. DOL encourages continued heightened biosecurity efforts and monitoring for abnormal mortalities and illness in poultry flocks.

For more information regarding the national status please use the following link: <https://rb.gy/qj5sb>.

NATIONAL POULTRY IMPROVEMENT PLAN (NPIP): NPIP was established in the early 1930's to provide a cooperative industry, state, and federal program through which diagnostic testing can be applied to the improvement of poultry health throughout the country. NPIP was initiated to help diminish the spread of Pullorum Disease; today, the program includes testing and monitoring for

several other poultry diseases, including influenza. NPIP has been highly successful at decreasing disease in poultry flocks.

Commercial and backyard poultry flock owners in Montana have shown great interest in this voluntary program. However, DOL has a shortage of authorized testing agents (ATAs) and willing Montana veterinarians to help meet the demand. [DOL requests participation from veterinarians, veterinary technicians/assistants, or anyone with interest in working with poultry to test or become ATAs and provide a service needed around Montana.](#) Testers perform pullorum testing, which is a bird-side test consisting of performing a small puncture in the wing vein to obtain a drop blood for an agglutination test (Figure 3) and may also perform influenza testing by swabbing the oral cavity (Figure 4). DOL staff can provide training to perform these simple tests for any interested individuals. For non-Veterinarians to become certified, they must complete training with DOL and pay \$50 for ATA certification. The certification is good for two years. ATAs can charge NPIP participants appropriately for the time to come test their flocks. Testing is free to NPIP participants and DOL provides test materials to the ATA or Montana veterinarian.

Please reach out to Britta Sekora or Dr. Merry Michalski at DOL for more information regarding NPIP testing. ✉

By Merry Michalski, DVM



Figure 3. Bird-Side Agglutination Test.
Source: DOL Staff



Figure 4. Oral Cavity Swab for Influenza Testing.
Source: DOL Staff

Dr. Zaluski: Farewell after 16 Years

How do I describe 16 years as the Montana state veterinarian?

I believe we've made significant progress on many issues including addressing the risk from a wildlife reservoir of brucellosis, increasing the capacity of the Montana Veterinary Diagnostic Laboratory (MVDL), improving traceability, and providing more consistent communication from the state veterinarian's office through email or this newsletter which is now in its 16th year.

But this article is not a victory lap. I look back with angst at a challenge several weeks into my tenure in 2007 as sheep in Southeastern Montana experienced an outbreak of bluetongue virus for the first time since the 1960s. After seeking advice from colleagues, I ultimately decided to quarantine sheep in 16 counties for several weeks. Unfortunately, the outbreak coincided with fall sales and dramatically impacted families and operations. With the benefit of hindsight, I would have handled this differently.

Likewise, I have been unsuccessful in my efforts to remove *Brucella abortus* from the federal list of Select Agents. The cost, regulatory oversight, documentation requirements, as well as limitations on how samples are handled under select agent rules make finding a better vaccine for either livestock or wildlife nearly impossible. We made progress as now both, the United States Department of Agriculture (USDA) and the Centers for Disease Control (CDC) support delisting, but unfortunately other partners in the select agent process have stonewalled, so success remains elusive.

However, we've had many successes which I attribute to an incredibly capable staff. I appreciate their dedication, patience, and willingness to find the right balance between regulatory enforcement and consideration for circumstances. We have largely mitigated the impacts of a brucellosis reservoir in wildlife as Montana livestock face no discrimination in commerce. Our program is funded through federal sources and Montana General Fund so the burden of mitigating the risk from publicly owned wildlife is not disproportionately carried by livestock producers.

Montana is a leader in animal traceability through the pairing of strong brands enforcement data, animal identification and electronic health certificates. With over 99% of all Montana issued health certificates in electronic format, the state is more resilient to incursions of animal disease. This means that data is more accurate, is handled by fewer people, and staff time that was previously committed to data entry can be applied to provid-

ing better services or reducing the amount personnel costs. With better data, the department can also more selectively target epidemiological investigations which inconveniences fewer animal owners. I appreciate efforts of veterinarians for their willingness to change from familiar paper forms to electronic formats; a change that hasn't been easy as the technology has been rapidly evolving over the last several years.

Incredibly, we are on the cusp for construction of a new veterinary diagnostic laboratory facility. The existing building poses many challenges including workflow, air handling, infrastructure such as electrical capacity, and structural issues brought by old age. The fact that we have been able to add new tests, maintain accreditation, offer competitive fees while maintaining industry-standard turnaround time in a 60-year old facility is a testament to laboratory leadership and staff commitment. The new building will be transformational, and allow Montana to offer the highest level diagnostic services in the region. I have shamelessly advocated the value of a state veterinary diagnostic laboratory to provide a critical surveillance data-stream to share with Montana citizens, offer rapid turnaround, and maintain accountability. The saying, "Success has many fathers but failure is an orphan", is true in this case. Efforts by the Board of Livestock, support from stockmen groups, the Montana Veterinary Medical Association, MVDL staff and critical funding authorized by the Montana legislature have all been indispensable.

Significant legislative wins come slowly, and there are 2 others worth mentioning. In the 2011 legislative session, we were successful in advocating for increased privacy protections for livestock diagnostic data (MCA 81-2-115). Testing results are often preliminary and can be taken out of context with significant implications on families, and livestock markets. Owners with positive tests in livestock can be seen as responsible for the source of infection in an area, when in fact they are just the first ones to submit diagnostic samples. For these reasons, livestock owners may be unwilling to participate in voluntary testing which would ultimately undermine animal health programs. Even with existing confidentiality protections, the department retains the ability to share diagnostic information to preserve animal health, and public health. On occasion, individual producers also agreed to share information based on public interest.

The other notable legislative accomplishment is the anti-feral swine law that was passed in 2015

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Dr. Zaluski: Farewell after 16 Years, continued

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(MCA 81-29-101-106). We drafted bill language with significant input from the Department of Fish Wildlife and Parks to keep Montana feral swine free. The law defines feral swine, prohibits range expansion of feral swine, and establishes the heaviest fines of any DOL regulation. As a significant component of feral swine expansion has been people illegally transporting the animals for hunting purposes, the law specifically prohibits the public taking of the animals which largely eliminates this incentive.

I feel proud of being associated with an incredible team at the Department of Livestock (DOL) as we worked out our way through state bureaucracy and an alphabet soup of disease and pestilence. We've learned together and I have confidence that we share priorities with veterinarians and livestock owners.

By the time this newsletter issue goes to print, I will be taking on another challenge: this time in the private sector as the Head of Regulatory Affairs at Global Vet Link (GVL). Many of you are familiar with GVL through their electronic certificates of veterinary inspection (CVIs), or Equine Infectious Anemia (EIA) test chart products.

In this new capacity, I'd like to offer the same openness to feedback that I hope I've been able to exhibit as state veterinarian. Thank you for this incredible opportunity. It's truly been an experience of a lifetime. ☺

By Martin Zaluski, DVM

We would like to extend our heartfelt gratitude and appreciation for Dr. Zaluski's exceptional dedication and 16 years of service as the Montana State Veterinarian. His unwavering commitment to the health and well-being of animals in our state has been truly remarkable.

Throughout Dr. Zaluski's tenure, he has demonstrated expertise, compassion, and tireless efforts to safeguard the welfare of livestock, pets, and wildlife. His proactive approach to disease prevention, surveillance, and effective response has undoubtedly made a significant impact on the veterinary community and the agricultural sector.

We want to express our deepest gratitude for Dr. Zaluski's unwavering commitment and remarkable service over the past 16 years. His expertise, dedication, and compassion have left an indelible mark on the veterinary field in Montana.

Sincerely,

The DOL Animal Health Team

Animal Health Contact Information:

Martin Zaluski, DVM
State Veterinarian, Administrator
(406) 444-0782
mzaluski@mt.gov

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

Merry Michalski, DVM
Program Veterinarian
(406) 444-2939
merry.michalski@mt.gov

Britta Sekora
Import Office Manager
(406) 444-2892
britta.sekora@mt.gov

Scott Beutelschies, DVM
Montana AVIC, USDA
(406) 594-2086
scott.a.beutelschies@usda.gov

Import Permit Office and Feral Swine Reporting
(406) 444-2976

We're on the Web:
www.liv.mt.gov



Animal Health Bureau
P.O. Box 202001
Helena, MT, 59620-2001
Return Service Requested
Phone: 406-444-2976
Fax: 406-444-1929
Email: livpermits@mt.gov

Montana Department of Livestock