



Stock Quotes: Animal Health Newsletter

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Quarterly Newsletter from the Animal Health Bureau of the
Montana Department of Livestock

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State Veterinarian Notes

ADMINISTRATIVE RULES: The Animal Health Bureau is proposing several rule changes. We are proposing to adjust the boundary of the Designated Surveillance Area (DSA) in response to results of the wild elk monitoring in the most southwestern portion of Montana by the Department of Fish Wildlife & Parks. We are also proposing to increase the number of counties where brucellosis vaccination is required. Both proposals are described in some detail in the brucellosis column on [page 4](#). Additionally, we are also proposing to change our import requirements for domestic bison recognizing that domestic bison from brucellosis and tuberculosis free states have the same disease risk as cattle. More information on this proposal and a number of housekeeping rule changes are in the administrative rule column on [page 2](#).

ANIMAL DISEASE RESPONSE DRILL: We recently completed an emergency response drill that tested our capability to respond to a detection of foot-and-mouth disease (FMD) in Montana. The simulation, forced critical decision-making in near real-time that will be needed in responding to any rapidly spreading animal health emergency. We performed well in being able to rapidly assemble movement information from the (simulated) affected herd. We also scored high marks in working closely with other state agencies and USDA. However, the lack of resources we've been able to commit to planning and training were also evident. These drills are intended to identify gaps in preparedness. To that end, we have much work to do. More on the exercise on [page 3](#).

MONTANA VETERINARY DIAGNOSTIC LABORATORY (MVDL): You may have noticed that serology laboratory submission forms (SV2A/B) are no longer available. The single-animal submission form (the SV43), a multiple-animal submission form (the SV2E) and a separate Salmonella enteritidis testing form are all available on the [MVDL web page](#). Offering these forms for download aligns with our desire to reduce paperwork and enhance electronic submissions and reporting. Electronic forms can be emailed

to us and submission information can be directly imported into our system, resulting in a higher quality, more detailed final report. Likewise, reporting results to you will also become easier and faster as we're able to use email and the laboratory web portal which is still in development. If you are not able to fill the forms out on your computer, you may still print and submit samples with hand-written forms.

Also, see the laboratory section for updates on the laboratory study committee. An engineering study describing a potential design and cost of a new laboratory building should be completed in the next several weeks. The report will also address the advantages and challenges of combining a number of other analytical laboratories under one roof in the state. More on the laboratory study committee on [page 6](#).

EQUINE HEALTH: Multiple states have reported cases of Equine Herpesvirus Myeloencephalopathy (EHM) including the Dakotas, Texas, and a number of states in the mid-west and east. The risk of EHM and other communicable diseases of horses can be reduced by horse owners working closely with their veterinarian to ensure adequate vaccination and reduce high risk practices. We've covered equine health a number of times in this newsletter and would refer you to the [March 2015](#) issue where we share recommendations for event risk management, and [March 2016](#) where we discuss equine health and electronic health certificates.

MEAT INSPECTION: On the topic of veterinary role in public health, you might be interested to know that the state meat inspection program is a critical component of supporting small businesses while protecting public health from food-borne illnesses. Department of Livestock employees inspect 101 state slaughter establishments. Of these, 21 are under state inspection (which allows them to sell product wholesale) requiring that an inspector be present at all times when slaughter is taking place, and 80 are custom exempt slaughter operations (that return meat to the owner that supplied the animal for processing). The custom exempt plants are inspected at least twice a year. Additionally, there are 207 other facilities that distribute or sell meat products that also require inspections. All of these activities are done with just 22.5 full-time employees. The program is funded 50:50 with federal and state general fund.

✉ By Martin Zaluski

CALENDAR OF EVENTS:

Montana Veterinary Medical Association Meeting:
Fall Symposium September 6-7

Deputy Veterinarian Training:
September 19, 2018

WHAT'S NEW:

1. Administrative Rule Changes ([page 2](#))
2. FMD Preparedness ([page 3](#))
3. Emerging Pest ([page 5](#))

Administrative Rule Changes

On July 6, the public comment period on several proposed changes to Administrative Rule of Montana (ARM) opens. There are three ARM changes with significant content changes and numerous minor housekeeping changes. The two proposed content changes to brucellosis management in Montana are discussed in the brucellosis section of this newsletter. The third is a change to the import requirements for domestic bison.

The Department of Livestock is recommending that import requirements for domestic bison reflect USDA regulations and treat bison as a program animal with the same import requirements as outlined for cattle for both brucellosis and tuberculosis. Our state specific trichomoniasis regulations would not extend to bison. Please note, this does not affect the management of bison that originate from Yellowstone National Park. These animals are covered under Montana Code Annotated [81-2-120](#).

The proposed changes to ARM would make the following changes to domestic bison import requirements:

- Domestic bison originating from a brucellosis Class Free US state will no longer

require a negative brucellosis test prior to importation.

- Remove the provision for a post-importation retest of domestic bison.
- Remove the requirement for domestic bison imported into Montana from a brucellosis Class Free US state to be official calfhood vaccinates prior to importation.
- Only sexually intact domestic bison from tuberculosis modified accredited advanced, modified accredited states, and from outside of the US will require a negative tuberculosis test (vs. all domestic bison).

Additional detail for all of the proposed changes can be found on our website at liv.mt.gov. The comment period is open until August 3, 2018. We hope you will take time to review all of the proposed changes and submit comments as you see appropriate.

✉ By Tahnee Szymanski

Reminder of Proposed Changes

<u>Rule No.</u>	<u>TITLE</u>	<u>Summary of Change</u>
32.3.108	Quarantine - Who May Issue	Revise language regarding Department approved form.
32.3.201	Definitions	Update terminology; correct citation.
32.3.206	Official Health Certificate	Update terminology; CVI requirements consistent with USDA, remove paper specific language
32.3.207	Permits	CVI requirements consistent with USDA, remove paper specific language
32.3.216	Horses, Mules, and Assess	Incorporate current language re: seasonal grazing
32.3.307	Department Ordered Pseudorabies Testing	Remove deputy state veterinarian language
32.3.311	Procedure upon Detection of Pseudorabies	Remove deputy state veterinarian language
32.3.407	Department Ordered Brucellosis Testing of Animals	Remove deputy state veterinarian language
32.3.411	Procedure upon Detection of Brucellosis	Remove deputy state veterinarian language
32.3.412	Memorandum of Understanding	Correct citation
32.3.430	Quarantine and Retest of Suspect Animals in Negative Herd	Repeal – Language not consistent with current scientific practice. Suspect cases managed in consultation with USDA APHIS.
32.3.1003	Contaminated Premises	Remove deputy state veterinarian language
32.3.2002	Swine Identification Code: Assignment of Codes	Repeal – outdated practice due to the adaptation of premises identification in the swine industry.
32.4.101	Definitions	Correct citation
32.4.202	Identification of Omnivores and Carnivores	Correct citation
32.4.601	Importation of Alternative Livestock	Include all alternative livestock (add deer) to animals that must originate from a source herd free from neurologic disease.

Figure 1: Proposed ARM Housekeeping Changes

Foot and Mouth Disease Preparedness

Foot and mouth disease (FMD) virus is one of the most contagious viruses known, and an outbreak of FMD in the United States is considered a worst-case scenario for the livestock industry. The United States has been FMD free since 1929, but the virus is still common in many parts of the world which means that there is an ongoing risk for introduction of the disease.

The economic impacts of an FMD outbreak would be due to lost sales in the US and closing of international export markets, animal and production losses, and costs associated with a large-scale disease response. USDA estimates that an FMD outbreak in the US would cost between \$15-

\$100 billion depending on the size of the outbreak. There are approximately 2.6 million cattle in Montana, and the cattle industry generates \$1.9 billion per year for Montana's economy.

When discussing FMD with those unfamiliar with the disease, it is important to emphasize that



Figure 2: The USDA Veterinary Services Plan

<https://www.aphis.usda.gov/aphis/ourfocus/emergencyresponse/>

FMD is not zoonotic and it is unrelated to the hand-foot-and-mouth disease that mainly affects young children.

The Department of Livestock (MDOL) recently participated in a national training drill designed to simulate an outbreak of FMD in the United States. Montana was invited to participate because we are a net-exporter of cattle. The exercise occurred over four days and was designed to simulate the first four days of an outbreak in real time. In addition to Montana, five other states, multiple divisions within USDA, and the FBI participated in the exercise. MDOL worked closely with USDA Veterinary Services Montana, Montana Disaster and Emergency Services, Montana Department of Agriculture, and several other state agencies to coordinate the state's activities during the exercise. A total of 38 Montana state employees were involved in the exercise, and overall almost 60 responders participated in Montana. Close to 700 people participated in the exercise nationally.

The exercise provided a valuable opportunity for MDOL to test our response plans and capabilities.

We identified several strengths including:

- Movement records – The brand system in Montana provides in-state movement records that were a valuable supplement to CVIs for animals that left the state.
- Strong support from other state agencies – Several state agencies committed multiple players to the exercise and provide support to MDOL's emergency planning efforts.
- Cooperation with USDA VS MT – MDOL and USDA staff routinely work together, and that cooperation would be key during an animal disease outbreak.
- Use of a National Incident Management Team (NIMT) – These teams are made up of USDA staff from around the country who have extra training in animal disease response. Having the NIMT here provided extra expertise and guidance for state staff playing in the exercise.

Our major areas for improvement are:

- Planning – Montana's emergency response plan was drafted in 2007 and has not been updated since. Additionally, there is a national push to create plans that will allow controlled movement of low-risk animals during an outbreak using a permitting system. Montana needs to develop these plans for our state.
- Training – MDOL staff require additional training to participate effectively in a widespread disease response and to take advantage of federal resources.
- Communication – This exercise demonstrated the overwhelming need for improved communication between MDOL, industry stakeholders, and the public during an animal disease emergency.
- Resources – MDOL is a small department with limited staff for emergency planning. MDOL will have to lean heavily on other state agencies and USDA in the case of a large scale, damaging animal disease outbreak like FMD. Coordination and training with those agencies now will be important to ensure that integration goes smoothly during a real event.

Participation in emergency drills is a necessary step in the emergency planning cycle (see figure 2). MDOL is looking forward to taking our experiences from this exercise and using them to further our emergency planning efforts and increase our readiness to respond to a foreign animal disease outbreak.

✉ By Emily Kaleczyc

Brucellosis

Proposed changes to Administrative Rule

The Montana Board of Livestock (BOL) has voted to propose changes to multiple Administrative Rules of Montana (ARM). All are open for public comment until August 3, 2018. Two of the proposed changes are brucellosis related. Changes to ARM 32.3.433 Designated Surveillance Area is a proposal to adjust the boundary of the current Designated Surveillance Area (DSA). The other includes changes to ARM 32.3.436 Vaccination within the Counties in which the DSA is located.

DSA Boundary adjustment: Following the discovery of the brucellosis exposed elk in HD 300, the Animal Health Bureau recommended a boundary change to the BOL. Due to the lack of an obvious geographic or political boundary that would encompass the exposed elk and livestock, the proposed boundary follows the Fish Wildlife and Parks boundary description of elk HD 300. Livestock that utilize this area would be subject to all DSA requirements including, movement and change of ownership testing, as well as additional identification requirements.

The Department of Livestock is proposing this boundary change because:

- Brucellosis exposed wildlife were found outside of the current DSA boundary during the risk period. The risk period is early winter through early summer (January 15 thru June 15). During this time, elk are pregnant and can therefore shed the bacteria in abortion or birth materials and fluids.
- Cattle owned by multiple different producers exist in the area during the risk period. Due to the potential for livestock to commingle with brucellosis infected wildlife, livestock surveillance is imperative to maintain trading partner confidence in the disease-free status of Montana livestock.

Inclusion of livestock in the brucellosis surveillance program (the DSA) is necessary to prevent undetected spread of the disease to livestock. The DSA has proven successful in finding cases of brucellosis in herds early and prior to spread within the herd or to animals outside of the DSA. Additionally, the program has proven successful at maintaining trading partner confidence in the disease-free status of

Montana livestock.

The capture and testing of additional elk in the northern Tendoy will be conducted next year to confirm the lack of the disease in wildlife there. Movement data collected from elk in the southern Tendoy may help to determine the likelihood of elk to elk exposure. For more information see the March StockQuotes, [here](#). FWP press release, [here](#).

Brucellosis vaccination: The proposed changes to the brucellosis vaccination ARM (32.3.436) would add cattle and domestic bison in five counties to the rule. Currently, brucellosis vaccination is required only in the four counties in which our DSA is located. The change would require that all female cattle and domestic bison 12 months of age and older, within any county that borders a DSA (including a DSA in an adjacent State), be official brucellosis vaccinates. Official vaccinates includes both calfhooed vaccinates as well as adult vaccinates. The five Counties that would be added because they border a DSA include Broadwater, Carbon, Jefferson, Stillwater, and Sweet Grass.

The rule change is intended to improve vaccination in areas adjacent to brucellosis-affected wildlife populations. The DSA boundary has changed multiple times since 2010 but the vaccination rule has not. We all understand that wildlife can move unpredictably. Brucellosis exposed wildlife have been discovered outside of the DSA boundaries in Montana, Wyoming, and Idaho. The addition of counties adjacent to any DSA is meant to help prevent the spread of brucellosis in livestock if a wildlife to livestock transmission were to occur adjacent to a DSA.

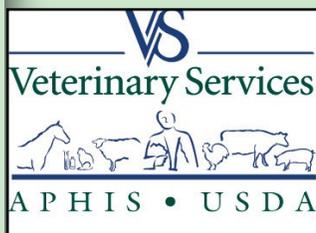
The proposed DSA boundary adjustment ARM and the proposed vaccination ARM are open on July 6, 2018 for public comment and will close on August 3, 2018 The proposed rules can be found at <http://liv.mt.gov/Home/ARM-Notices>. Comments can be submitted at livmail@mt.gov. Following the public comment period, the BOL will review input and make changes or even eliminate the proposal. If adopted as written, the rule would go into effect at the end of August. ✉ By Eric Liska



Figure 3: Elk.

<https://pixnio.com>

Emerging Pest



Emerging Pest in U.S. – “Longhorned tick”

Haemaphysalis longicornis (the longhorned tick), an exotic tick native to East Asia, has been confirmed by USDA’s National Veterinary Services Laboratories (NVSL) in four states - Arkansas, New Jersey, Virginia, and West Virginia. Prior to these detections, this tick has never previously established a population in the U.S. This tick is a known serious pest of livestock with invasive populations in Australia, New Zealand, and several Pacific islands. This tick is a known serious pest of livestock with invasive populations in Australia, New Zealand, and several Pacific islands. It is an aggressive biter and frequently builds intense infestations on domestic hosts causing great stress, reduced growth and production, and exsanguination. Of significant concern – the tick can reproduce parthenogenetically (without a male), a single fed female tick can create a population and it is a known/suspected vector of several viral, bacterial and protozoan agents of livestock and human diseases. Intense infestations of cattle can lead to weakness and in some cases - exsanguination and death. This pest has also been implicated in transmission of several diseases of veterinary concern, including *Rickettsia japonica*, the agent of Oriental spotted fever; *Theileria orientalis*, the agent of cattle theileriosis; and a recently identified bunyavirus causing Severe Fever with Thrombocytopenia Syndrome (SFTS). Field populations of ticks have been found infected with *Anaplasma*, *Ehrlichia*, and *Borrelia* spp. in China and Korea.

Being a three host tick, this tick has the ability to spread pathogens among a diverse host range, on which it feeds side-by-side with other tick species. The recent detections in the U.S. are the first time this tick has been seen out of quarantine in the United States. The establishment of this tick species is unprecedented in recent U.S. history in regards to its geographic scope and might only be compared back to the spread of cattle fever ticks in the late 1800s.

Detections:

New Jersey - The index case involved a sheep in August 2017 followed by the finding of ticks emerging from diapause in April 2018. Additional *H. longicornis* are now confirmed in 4 counties from 10 separate sites in central NJ. Also, *H. longicornis* has now been confirmed from a dog collected in 2013 from Union

County establishing the presence of the tick in NJ as far back as 5 years ago.

Virginia- May 2018, NVSL confirmed the finding of the *H. longicornis* tick in Albemarle County Virginia from an orphaned calf on a beef farm. The farm from which the calf originated was the source of a foreign animal disease investigation conducted in December of 2017, after NVSL confirmed *Theileria orientalis* in six animals within the herd. The herd experienced illness with clinical signs consistent with anemia, and the death of approximately seven out of 120 animals. While there has been no official confirmation of theileriosis in these ticks or in causing the signs in this herd, the clinical picture is consistent with disease in countries where cattle theileriosis is known to occur. Suspect ticks collected from a horse in Warren County were also confirmed as *H. longicornis*.

West Virginia- May 2018, NVSL confirmed *H. longicornis* ticks collected from cattle on two separate premises in Hardy County, West Virginia. Hardy County is located in eastern West Virginia, on the border of Virginia, approximately 100 miles from Albemarle County, Virginia.

Arkansas- June 2018, NVSL confirmed *H. longicornis* from a Benton County, Arkansas dog through a research project at Oklahoma State University. Although a sample was not available for site identification at NVSL, NVSL was able to confirm via a photograph and via molecular typing to *H. longicornis* at Oklahoma State.

The current host list from this introduction includes: dog, cow, goat, sheep, white-tailed deer, opossum, raccoon, and horse. Although ticks were collected crawling on a human; no longhorned ticks have been recorded feeding on people in the U.S.

There is great concern about the potential for *H. longicornis* becoming established in the U.S. as suitable hosts and habitats are common and widespread. Please keep this in mind as you conduct your daily animal examinations – call USDA (406-437-9450) or the Montana Department of Livestock (406-444-2043) if you detect unusual tick infestations - your awareness and vigilance is critical.

α Thomas Linfield

State Lab Study

During the last legislative session, the Legislature passed HB 661, establishing a legislative committee to investigate the long-term future of the multiple state supported laboratories currently located on the campus of MSU-Bozeman and to evaluate for potential efficiencies to be gained through infrastructure, organizational, or statutory changes. The committee will report back to the Legislature with proposals for each of the included laboratories, and may introduce accompanying legislation in the coming legislative session. The Veterinary Diagnostic Laboratory is the largest and most complex entity under consideration in this study, and our staff have been closely involved with the committee's work.

As part of this process, legislators and industry partners have participated in multiple meetings and tours to gain a better understanding of each laboratory entity. In addition, the committee decided to hire the services of architectural and engineering consultants with laboratory experience to better assess the needs of each lab and formulate accurate cost analyses for the proposals that will be recommended to the full legislature.

We were fortunate in that the consultants hired have substantial experience designing modern veterinary diagnostic laboratories, and have a ready grasp of our needs, both at present and in the future. Meetings with these consultants began in April, with a full week of on-site visits and stakeholder sessions designed to determine our current workflow and vital needs. By the end of the week, the consultants had comprehensive room lists and square footage estimates for all sections of each laboratory included in the study. They returned for additional meetings in May, and were able to refine their initial estimates in preparation for creating detailed cost analysis documents.

Over the summer, the lab study committee will continue to work with the architects and engineers to determine which proposals to advance to the full legislature this winter. Although many details remain to be determined, the diagnostic laboratory is in a better position to obtain a much-needed new, modern facility than it ever has been, and I look forward to the possibilities with great anticipation.

✂ By Steve Smith

Animal Health Contact Information:

Marty Zaluski, DVM
State Veterinarian, Administrator
(406) 444-2043
mzaluski@mt.gov

Tahnee Szymanski, DVM
Assistant State Veterinarian
(406) 444-5214
tszymanski@mt.gov

Eric Liska, DVM
Brucellosis Program Veterinarian
(406) 444-3374
eliska@mt.gov

Emily Kaleczyc
Alternative Livestock
(406) 444-9622
ekaleczyc@mt.gov

Import Permit Office
(406) 444-2976

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



Animal Health Division
P.O. Box 202001
Helena, MT, 59620-2001
Return Service Requested
Phone: 406-444-2043
Import line: 406-444-2976
Fax: 406-444-1929

**Montana Department
of Livestock**