



# StockQuotes Animal Health Newsletter

Sep 2011

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

Volume 4, Issue 3

### Inside this issue:

- State Veterinarian Update** 1
- DRAFT Trich Rules** 1
- Brucellosis Update** 2
- Reported Diseases** 2
- GAO Report on Horse Welfare— Impact of Horse Slaughter Ban** 3
- Traceability Rule Published** 4
- Laboratory Column** 5  
Johne's Diagnosis
- Staff Corner— Welcome Leslie Doely** 6
- USDA Accreditation Deadline** 6

### CALENDAR OF EVENTS:

- Board of Livestock Meeting**  
September 26-27
- MFBF Annual Convention**  
November 6-9, 2011
- Deadline to Enroll in Federal Accreditation**  
October 1, 2011
- Brand Rerecord Deadline**  
December 31
- MT Veterinary Medical Association Winter Meeting**  
January 27 & 28  
Bozeman, Montana

## State Veterinarian Update

After an active spring with EHV, and a number of administrative rule changes, Montana seemed to have a reasonably quiet summer. That changed around the middle of September when we were notified of a half-dozen reactors from a Park County cattle herd in the Designated Surveillance Area (DSA). On September 23, we received confirmation that a *Brucella abortus* was isolated from a milk sample MDOL collected on one of the reactor animals. This is the fourth brucellosis affected livestock herd in the state of Montana since 2007. More on this case in the brucellosis column.

Directly on the heels of the brucellosis diagnosis, MDOL received notification of a 32 year old EIA positive mule in Carbon County. Fortunately, there are only two other horses on the property and both of those tested negative. Montana's last case of EIA was in April, 2010 near Bozeman where a positive horse was found on pre-movement testing. Follow-up testing revealed one additional positive horse on the same premises. Six additional premises with a total of 39 horses were tested as part of the 2010 investigation.

At the time this column is being written, we know very little additional information about the premises in question and will provide additional updates by e-mail as the investigation develops. This segues to my quarterly plug for sharing your e-mail address if you'd like more timely information than the quarterly newsletter can provide.

One bullet that we seem to have dodged is bluetongue. In late August, we received a number of reports of illness in deer from Valley, Phillips and Yellowstone Counties. These reports coincided with illness of undetermined cause in two sheep flocks. However, Dr. Greg Johnson, professor of veterinary entomology at MSU felt the summer was probably not hot enough to allow for the necessary number of *Culicoides* midge generations for bluetongue transmission. This was supported by the

(Continued on page 4)

## Trich Draft Rule Comment Period Closing Soon

By the time you read this newsletter, we will be approaching the end of the comment period for the proposed changes to the current trichomoniasis program. Comments will be accepted through October 12, 2011. Hopefully, you've taken a few minutes to review the proposed changes and submit your feedback and comments, which are critical for the Board of Livestock when writing the final rule. You should have received both an electronic and paper version of the proposed rule as well as a pamphlet summarizing the main proposed changes. If you have producers who are interested in submitting comments, the materials can also be accessed from the department's website.

The proposed changes to the current rule include:

- The creation of a trich epizootic area to focus disease surveillance;
- An open cow rule on animals originating from positive herds, epizootic areas, or from outside Montana;
- A conditional testing exemption for cattle grazing in common (signed and approved herd plan required); and
- Mandatory use of the Montana trich tag on tested bulls.

The creation of a 10 county trich epizootic area will eliminate the statewide testing requirement for bulls sold, loaned, or leased in Montana while focusing surveillance and enforcement efforts on high risk areas. Proposed counties include: Glacier, Pondera, Teton, Cascade, Carbon, Yellowstone, Big Horn, Treasure, Rosebud, and Powder River. Bulls imported into Montana and bulls from groups grazing in common would still be subjected to trich testing requirements.

The open cow rule is proposed to ensure that trich is not introduced into areas of the state where the disease is not known to exist. The open cow rule would apply to: animals sold within or originating from the trich epizootic area; animals imported into Montana; and animals originating from trich positive herds. If this rule is adopted as

(Continued on page 6)

## Brucellosis Updates

**REACTOR CATTLE HERD:** On September 23, the National Veterinary Services Laboratory (NVSL) notified MDOL that a *Brucella abortus* biovar 1 was isolated from a cattle herd located in the Designated Surveillance Area (DSA) in Park County. The previous week, MDOL collected milk samples on several reactor animals in the herd and submitted them for culture. The six reactors have already been slaughtered and tissues have been submitted for additional testing. Those results are expected in early October.

Interestingly, all of the reactor heifers were vaccinated in November 2010. While it's disturbing to see six reactors so soon after vaccination, the vaccine may actually have worked as advertised with five of the six (83%) heifers remaining pregnant despite becoming exposed to brucella. The blood tests indicate a very vigorous immune response, and the vaccine is much better at preventing abortion than infection.

We're still in the preliminary stages of the investigation. All the adjacent producers to the affected herd have tested cattle over the last several years. MDOL is working with these producers to schedule a whole herd test.

While it's too early to speculate on the source of exposure, the affected premises is not within the bison seasonal tolerance zone, while elk brucellosis in this area is well-established.

As much as I hate to see these test results, it seems that we have again been successful in detecting exposure to *Brucella* at the source rather than the disease being found in one of our export states. So far, we have been successful in making the argument that we are effectively managing the risk. Thank you for your efforts in this regard.

**DSA REGULATIONS:** Just a brief reminder that all sexually intact cattle, regardless of age, leaving the DSA must be permanently and officially identified. Testing is required for all sexually intact cattle 12 months of age and older leaving the DSA.

Any variances to these requirements must be done through a herd plan. ☒

mz

## Reportable Diseases

During the summer months, we received reports from Montana veterinarians of 3 positive canine heartworm cases, 1 positive feline tularemia, 1 positive feline plague, and 1 positive canine babesiosis.

MDOL frequently receives calls from practitioners trying to assess the prevalence of these and other diseases. The quality and completeness of the information we can provide depends on the reporting we receive. Through communication with public health officials and through the One Health initiative, we also receive reports on positive human cases of zoonotic diseases, further emphasizing the importance of animal disease reporting. This information allows us to stay abreast of the disease status of our state and to document the location and frequency of reportable diseases.

The most recent heartworm positive is a native Montana canine with no history of travel out of state. The Custer County Labrador presented with a history of persistent cough and is currently undergoing treatment for heartworm. This case helps validate concerns that heartworm transmission is occurring in Montana. Continued reporting of heartworm and other less common diseases allows MDOL to track the incidence and history of these animals to assess how the incidence/prevalence of disease is changing.

MDOL receives all test charts submitted through our state diagnostic laboratory. On occasion, you may receive a phone call from Dr. Zaluski or me to follow up regarding the reason for test, the history of affected animals, the final diagnosis, and the outcome of cases. Please remember that we only see submissions through our state lab. If you routinely use an out-of-state lab or are using in-house diagnostics, MDOL would appreciate any relevant disease information or positive cases being shared with our office! Out-of-state labs typically do not report positive test data to MDOL. If you are using an out of state lab for diagnostics, you may not be meeting your reporting requirements! ☒

By Tahnee Szymanski, DVM



## General Accountability Office (GAO) Report on Horse Welfare

MDOL Brands Enforcement Division has seen an increase in horse welfare incidents, highlighted most recently by the abandoned Leachman horses near Billings last winter, and many other less publicized incidents. Therefore, we have great interest in a study by the General Accountability Office (GAO) published in June titled: Horse Welfare – Action Needed to Address Unintended Consequences from Cessation of Domestic Slaughter.

The GAO studied documents, and interviewed persons from a variety of state and federal agencies, Native American Tribes, American Association of Equine Practitioners, other equine industry groups, horse auctions, and animal welfare organizations. As the title suggests, the GAO found a number of unintended consequences of the ban on horse slaughter in the US. Much of the text below was excerpted from that report.

Since domestic horse slaughter ceased in 2007, the slaughter horse market has shifted to Canada and Mexico. From 2006 through 2010, U.S. horse exports for slaughter increased by 148 and 660 percent to Canada and Mexico, respectively. As a result, nearly the same number of U.S. horses was transported to Canada and Mexico for slaughter in 2010—nearly 138,000 — as was slaughtered before domestic slaughter ceased. Available data show that horse prices declined since 2007, mainly for the lower-priced horses that are more likely to be bought for slaughter. GAO analysis of horse sale data estimates that closing domestic horse slaughter facilities significantly and negatively affected lower-to-medium priced horses by 8 to 21 percent.

Comprehensive national data are lacking, but state, local government, and animal welfare organizations report a rise in investigations for horse neglect and more abandoned horses since 2007. For example, Colorado data showed that investigations for horse neglect and abuse increased more than 60 percent from 975 in 2005 to 1,588 in 2009. Also, California, Texas, and Florida reported more horses abandoned on private or state land since 2007.

USDA is the main enforcement authority regulating the welfare of horses transported for slaughter. Yet the GAO reports that USDA faces a number of challenges. First, prohibitions on USDA's use of federal funds for inspecting slaughter horses impede USDA's enforcement

of the transport regulation. Second, GAO analysis shows that U.S. horses intended for slaughter are now traveling significantly greater distances to reach their final destination (for example, the slaughtering facilities in Mexico that process U.S. horses are located near Mexico City – an additional 600 mile journey after crossing the international border), where they are not covered by U.S. humane slaughter protections. With cessation of domestic slaughter, USDA lacks staff and resources at the borders and foreign slaughtering facilities that it once had in domestic facilities to help identify problems with shipping paperwork or the condition of horses before they are slaughtered.

Lastly, the GAO found that due to a delay in publication of a USDA rule on horse transport, federal regulations only applied to transport of horses directly to slaughtering facilities. This provided inadequate protections because horses can travel for hundreds of miles before reaching their last leg where they are declared as slaughter horses. Fortunately, subsequent to the GAO report, the USDA published the final rule in early September which now more broadly includes horses moved first to stockyards, assembly points, and feedlots before being transported to slaughter in Canada and Mexico.

The main points from the GAO analysis include:

1. The number of U.S. horses that are purchased for slaughter has not decreased since domestic slaughter ceased in 2007.
2. Horses are traveling farther to meet the same end in foreign slaughtering facilities.
3. Horses transported out of the country for slaughter are processed where U.S. humane slaughtering protections do not apply. (This results in reduced enforcement of welfare standards where, anecdotally, facility conditions are already significantly lower than in US plants – mz edit).
4. Finally, the GAO concluded that the “cessation of domestic slaughter has had unintended consequences, most importantly, perhaps, the decline in horse welfare in United States.”

I strongly recommend anyone with an interest in the topic to review the full report (GAO-11-228). ✕ mz



A straight trailer as required by newly published USDA regulations for slaughter horse transport to slaughter plants, stockyards or assembly points.



An example of horse transport to Mexican slaughter facility.

Source: GAO Report on Horse Welfare, 2011





## Traceability Rule Update

USDA-APHIS published the long-awaited proposed rule on animal disease traceability in U.S. livestock. The proposed rule will apply to cattle, bison, sheep, goats, swine, horses, captive cervids, and poultry. While the now abandoned National Animal Identification System (NAIS) was a voluntary program affecting all producers, the new framework will be a mandatory program affecting some producers (those who ship covered livestock across state lines).

Because the greatest gaps in identification exist in cattle, this species received the most emphasis. New requirements have also been added for bison, equines, and poultry moved interstate to live bird markets. In a number of other species, traceability is already covered by established and effective disease programs (i.e. scrapie in sheep) which will be referenced in the new rule.

There are two primary elements to the proposed federal traceability rule; 1) Official identification and, 2) Interstate Certificate of Veterinary Inspection (Health certificates).

The proposed rule will apply to these classes of cattle and domestic bison:

- Sexually intact cattle and bison 18 months of age and older;
- Dairy cattle of any age;
- Cattle and bison of any age used for rodeo and recreational events;
- Cattle and bison of any age used for shows or exhibitions.

Additional requirements (younger cattle) will be phased in over time.

Much discussion has focused on the exclusion of brands from the list of acceptable forms of official identification. This was done to prevent non-brand states from being forced to accept a brand or brand inspection as a form of official identification. Brands will remain a permissible form of official ID for animals moving interstate when both the shipping and receiving states agree upon their use. Other exceptions to the ID requirement include:

- Animals moving interstate as part of an approved commuter herd.
- Animals moved directly from one state through another state and back to the

original state due to the configuration of state boundaries.

- Animals moved directly to an approved tagging site.
- Animals moving interstate in recognized and approved "slaughter only" channels with a USDA-approved backtag.

Montana is now providing silver metal brite tags directly to producers, free of charge, for application to animals prior to movement from the ranch of origin. If you have producers who are interested in receiving these tags, please direct them to our department.

The comment period for the proposed changes will be open through November 9, 2011. Instructions for submitting comment are included in the proposed rule. The proposed rule and additional supplemental information can be accessed from our department website at <http://liv.mt.gov/mtid/default.mcp.x>. ☒

By Tahnee Szymanski, DVM

*(State vet update continued from page 1)*

Department of Fish Wildlife and Parks reporting that no known antelope were affected (antelope seem to be much more sensitive to bluetongue than EHD).

Following some nailbiting days waiting for laboratory results from the wildlife and domestic sheep, the disease was confirmed as EHD (epizootic hemorrhagic disease), which rarely affects livestock.

In both of the most recent news releases (brucellosis and EIA), you may have noticed a difference in MDOL reporting of the geographical location of the incident. While previously we disclosed the specific location of a disease incident, House Bill 294 passed by the 2011 legislature requires MDOL to keep all testing data on livestock confidential. Exceptions to this requirement include the ability to disclose information to "prevent the spread of animal disease or to protect the public health." The law (81-2-115) takes effect October 1, and in the future, MDOL will be disclosing disease information only down to the county level. ☒ mz



## Laboratory Column—Johne's Diagnosis

Recently, the Montana Veterinary Diagnostic Laboratory (MVDL) has performed an increasing number of tests for the diagnosis of Johne's disease. Johne's disease is a chronic intestinal infection affecting many species of ruminants as well as new and old world camels. Infection can result in disease that is manifested by weight loss prior to death, decreased milk production and frequently in cattle, protracted diarrhea. The major cost of the disease in herds is due to production loss and restriction of the sale of animals and their products; especially semen. In Montana, the disease has been identified in beef and dairy cattle, bison, elk, sheep, goats and llamas.

The cause of Johne's disease is a bacterium in the same family as the organisms that cause tuberculosis in man and cattle. The organism is named *Mycobacterium avium* subsp. *paratuberculosis* (MAP). Infection is acquired predominantly by ingesting contaminated feed and milk. Infected animals shed MAP in the feces and milk and occasionally, in-utero transmission can occur. MAP persists in the environment and is resistant to heat, cold, and most antibiotics and disinfectants. Calves are significantly more susceptible than adults but adults can also become infected and develop disease. Symptoms are first observed in animals three years old or greater. Many of the infected animals will not demonstrate any symptoms but can be shedding the organism and silently infecting other animals in the group. Classic symptoms normally occur after a stressful event such as calving.

The gold standard for the diagnosis of Johne's disease is culture, but results can take up to four months to complete. Rapid molecular techniques are available and can be used to identify MAP in feces, tissue, milk or semen. Animals that shed small numbers of MAP or shed the organism intermittently can be missed because the bacteria are not present in the sample collected for amplification. Feces can also contain inhibitors that interfere with PCR amplification causing false negative results.

Serologic screening (ELISA, AGID or CF tests) that measure antibody can be useful and inexpensive tests for the surveillance in herds suspected of being infected or for the

diagnosis in animals demonstrating disease. Unfortunately, serologic tests suffer from low sensitivity and, therefore, result in a significant number of false negatives. These tests should not be used for routine individual animal testing unless the animal is demonstrating clinical signs. However, they may be useful to identify infection in a herd and as an additional tool for culling purposes.

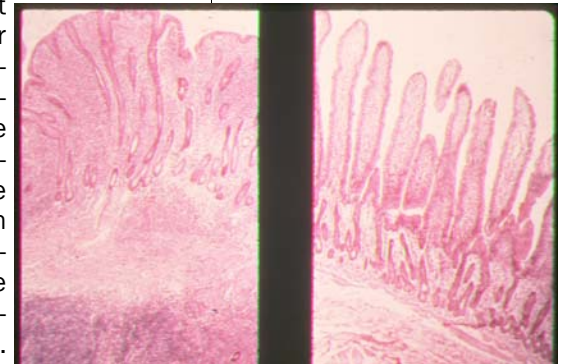
Post mortem examination by a trained pathologist is an excellent diagnostic procedure for diagnosing Johne's disease in an animal demonstrating clinical signs. The gross and microscopic lesions of Johne's disease are quite distinct and in conjunction with the identification of bacteria in the tissues, provide an excellent working diagnosis. This allows the implementation of management procedures while waiting for confirmation with culture or PCR. Biopsies of the mesenteric lymph nodes and intestine can also be utilized when sacrifice of the animal is not practical.

A diagnostic or management plan needs to be discussed with your veterinarian or pathologists at the MVDL prior to any investment. The next column will deal with management practice that can be used to decrease infection and possibly eradicate the disease and address the potential risks it can pose to human health. ☒

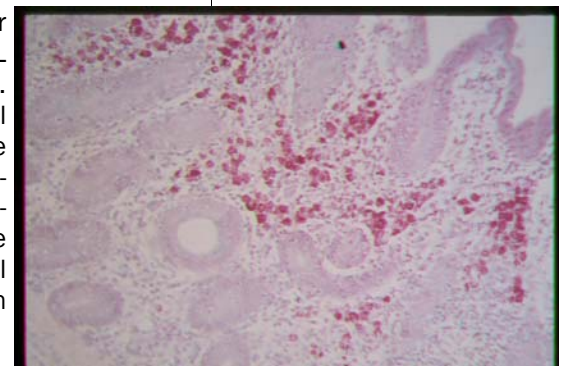
Bill Layton, Director, Montana Veterinary Diagnostic Laboratory



Gross photo of intestine from cow with Johne's Disease. Note thickened and corrugated lining. Normal lining is smooth. BL.



Microscopic photo of normal intestinal lining (right) and Johne's Disease intestine (left). Note the finger like projections of the normal lining compared to the fused and flatten lining of the infected bowel. The infected bowel also has a severe infiltration of leucocytes that causes the thickening noted in the top photo



Numerous red intracellular bacteria in intestinal lining

## Montana Department of Livestock

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### Staff Corner – Leslie Doely



I joined the Department of Livestock last year to help with brands rerecord. In August, I joined Animal Health Division as a compliance technician after Lindsay Mulcare returned to MSU Bozeman to pursue a masters degree (go Cats!).

I'm also a graduate of MSU with a degree in animal science. My husband, Josh, and I moved to Helena in 2010 after getting married in our hometown of Kalispell. Josh also works with agricultural producers as a loan officer in Helena.

I enjoy the great outdoors and am a relentless lover of all things horse-related. Josh and I and our border collie, Brinley, spend our weekends riding, camping, fishing, hunting, or just visiting family and friends. I'm very excited to join the animal health staff. ☘

### Federal Veterinary Accreditation Deadline:

After several extensions, USDA-APHIS has established a hard deadline for re-enrolling in the federal accreditation program. The drop-dead date is now October 1, 2011. If you have colleagues that are "off the grid", please share this with them.

Please see the USDA link for more information: <http://goo.gl/4kXpT> ☘ mz

*(Trich Rule DRAFT continued from page 1)* proposed, sexually intact female cattle (from the regulated areas) over 12 months of age would be restricted to slaughter channels unless they are spayed, verified by owner as virgin, verified by a veterinarian to be greater than 120 days pregnant, or verified by the owner to be not exposed to an intact bull within the previous 120 days.

I welcome your questions or comments. (406) 465-4051 or [tszymanski@mt.gov](mailto:tszymanski@mt.gov). ☘

By Tahnee Szymanski, DVM

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