



Jun 2012

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Amy Patterson

CALENDAR OF EVENTS:

- Board of Livestock Meeting**
July 16 & 17
- Montana Trich Tags Change Color to Orange**
Sept 1
- Veterinary Accreditation/ Deputy Training**
Oct 4, Helena

StockQuotes Animal Health Newsletter

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

Volume 5, Issue 2

State Veterinarian Notes **Brucellosis Update**

Thanks for reading StockQuotes, the Montana Department of Livestock (MDOL) Animal Health Division's quarterly newsletter, which is in its fifth year. All issues of this newsletter can be found on our website in living color: <http://goo.gl/P113a>. In addition to the standard sections, this issue addresses a number of administrative topics including rulemaking and budgets.

At the May meeting, the Board of Livestock (BOL) made a number of rule changes (both, final and proposed) relating to brucellosis, rabies, and import requirements. Please see the "Board of Livestock and Rules Review" column for additional details. Another column explains the source of funding for MDOL. You may be surprised where the majority of our budget comes from!

Montana continues to make headway in reducing the state's veterinary shortage. USDA's National Institute of Food and Agriculture (NIFA) updated the Veterinary Medicine Loan Repayment Program (VMLRP) web site (<http://goo.gl/gINhE>) with some interesting information. In addition to the three Montana shortage areas that were filled in 2010, six areas were filled in the 2011 program cycle. In fact, Montana filled more shortage areas than any other state during this last cycle based on the annual report. Thanks again to Dr. Marc Mattix for his leadership in editing the original nomination area form in 2010.

Interestingly, the American Association of Bovine Practitioners (AABP) concluded in 2011 that there is not an absolute shortage in the number of rural veterinarians. Instead, shortcomings in the rural practice model that make food animal practice less desirable are primarily to blame. Regardless of the underlying causes for the under-supply of food animal veterinarians in the state, the VMLRP has significantly increased this supply over the last several years.

I'll close with an update on the Fergus County trichomoniasis investigation. As of June 11, the investigation is closed pending mandato-

(Continued on page 5)

DSA RULE CHANGE: As I wrote in the last issue, January's elk surveillance again revealed brucellosis positive elk outside our surveillance area (DSA). Specifically, five elk of 40 captured in the Sage Creek/Basin Creek area east of Lima were seropositive. Fortunately, this area is not utilized by cattle during the elk abortion/calving season, however, the confidence that other state animal health officials have in Montana's brucellosis program depends on MDOL responding to even small indications of risk outside our boundaries. Based on this elk surveillance, the BOL approved the final rule to adjust the boundary of the DSA in Beaverhead County to run south on I-15 from Dillon to the Idaho border at Monida. The rule was published on June 22.

MORE CHANGES TO MONTANA'S BRUCELLOSIS PROGRAM: I spent several hours on the phone recently explaining the details of Montana's brucellosis program to other state veterinarians. Regardless of our strong record and early detection of affected herds, several states remain anxious about the likelihood of the Greater Yellowstone Area states exporting a brucellosis positive animal. As such, I've had to answer numerous questions on testing and identification requirements, enforcement of regulations, and our assessment of compliance with the program.

Coincidentally, these discussions were followed up by a draft agreement provided by USDA that requests numerous changes to our brucellosis program. This process is part of the 2010 federal interim rule on brucellosis which not only removed mandatory herd depopulation and state class status downgrade, but also required that a state with brucellosis in wildlife must have a brucellosis management plan approved by USDA.

Therefore, while I feel that Montana's brucellosis program is highly effective, I see it continually evolving to meet these concerns, without which Montana cattle may again be

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Board of Livestock Meeting and Rules Review

At the May meeting, the Board of Livestock (BOL) rescinded a number of Official Orders, and approved publishing several draft and final rules.

Official orders allow the Department of Livestock to address animal health situations needing a more rapid regulatory response than standard rulemaking can provide. Over the last 15 years, official orders have been written in response to BSE (mad cow), brucellosis, tuberculosis (TB), and a number of other diseases. Out of convenience, some of these orders remain active many years after they're initially written with some dating back to 1998. The 2011 legislature required that official orders last no more than five years, and are not used to establish a "permanent program", therefore, Animal Health Division is in the process of rescinding unneeded orders and moving others into rule.

As part of this process, the BOL voted to rescind the TB Official Order upon publication of the new TB rule. The BOL also rescinded the Designated Surveillance Area (DSA) order (2010), and Brucellosis Testing Requirements for animals imported into MT (2006), as these requirements are already in rule. A number of other orders were also rescinded, and several draft rules are being published to take their place. New draft rules include 32.3.212-Additional Requirements for Cattle, and 32.3.2001-Brands and Earmarks. Additionally, we'll be publishing a draft rabies rule to improve consistency with the current Compendium on Rabies Prevention by giving MDOL the option to require euthanasia of rabies exposed animals.

Official orders to be rescinded include:

- TB Testing of Animals Imported into Montana (2010); replaced by TB rule.
- Brucellosis Surveillance Requirements & DSA (2010); currently in rule.
- Importation of Cattle and Bison from Canada (2008); to be superseded by DRAFT ARMs, 32.3.212-Additional Requirements for Cattle, 32.3.2001-Brands and Earmarks, and TB rule.
- Brucellosis Testing of Animals Imported into Montana (2006); not needed because of federal brucellosis rules.

- Ruminant Feeding Order (2001); no longer needed because of federal rule and MT Department of Agriculture rules.
- Calves Under 30 Days of Age Imported into Montana (1998); to be superseded by DRAFT rule 32.3.212-Additional Requirements for Cattle.

This process is somewhat convoluted but yet necessary to ensure that rules affecting livestock and other animals are current, clear and as easy to understand as possible. Official orders on chronic wasting disease (CWD), equine viral arteritis (EVA), and identification requirements for sheep and goats will likely get the same treatment in the coming months.

Other rules likely to receive a review include trichomoniasis (to offer pooling of samples) and anthrax (to allow other options for carcass disposal in addition to lime which may actually contribute to spore formation).

Lastly, national traceability regulations will be published by USDA within the next three months, and MDOL will likely be adopting these rules by reference. ☒ mz

(State Veterinarian Notes continued from page 1)
ry post-breeding season tests on affected herds. This effort resulted in the removal of 36 positive bulls from 9 herds in 4 counties. Mandatory testing was performed by 87 herds (881 bulls total).

An additional 69 herds in Fergus County voluntarily tested 560 bulls. When compared to a total of 20 Fergus County bulls tested in 2011, the recent increase in voluntary testing represents significant interest in the disease. A strong commitment by producers, availability of private veterinarians to conduct testing, and diligence by Dr. Tahnee Szymanski, Leslie Doely, Dr. Sherrie Nash and others on the MDOL staff were instrumental to the success of this investigation. ☒ mz



Montana Board of Livestock:
John H. Lehfeldt, Lavina (sheep)
Linda Nielsen, Nashua (cattle)
Jeff Lewis, Corvallis (dairy)
Jan French - Board Chair, Hobson, (cattle)
Brett DeBruycker, Dutton, (cattle)
Ed Waldner, Chester, (swine)
Stan Boone, Ingomar, (cattle)



Paul Johnson, District Investigator based in Great Falls clips an animal to read a brand.

Dept of Livestock Budget

With the next legislative session around the corner, I thought it might be appropriate to explain where the MDOL budget comes from.

MDOL has an annual budget of \$11M. This funding supports animal health activities, diagnostic laboratory, brands enforcement, centralized services (accounting) and the milk and egg, and meat inspection sections.

There are three main sources of funding:

1. Fees and per head assessments (State Special Revenue—SSR) at 68%,
2. federal funds at 18%, and
3. general fund at 14% (Chart 1).

SSR is comprised of Per Capita assessments and fees that MDOL charges for some services such as brand inspections, laboratory diagnostics, and milk inspection. The per capita fee makes up the largest portion of SSR. The fee relies on “self-reporting” of the animal inventory each calendar year on February 1. The per head assessment varies by species and is currently at:

- \$0.33 on bees (per hive, not per bee),
- \$0.02 on chickens, \$22.73 on alternative livestock (private cervidae),
- \$0.40 for sheep,
- \$0.62 for swine,
- \$4.72 for horses,
- \$5.11 for domestic bison, and
- \$1.88 for cattle.

More information on the per capita fee is available on our web site: <http://goo.gl/msbl5>. The Board of Livestock (comprised of producers in varying livestock sectors) sets the per capita fee annually at the September meeting. Any increase is limited to 110% average of the previous three years.

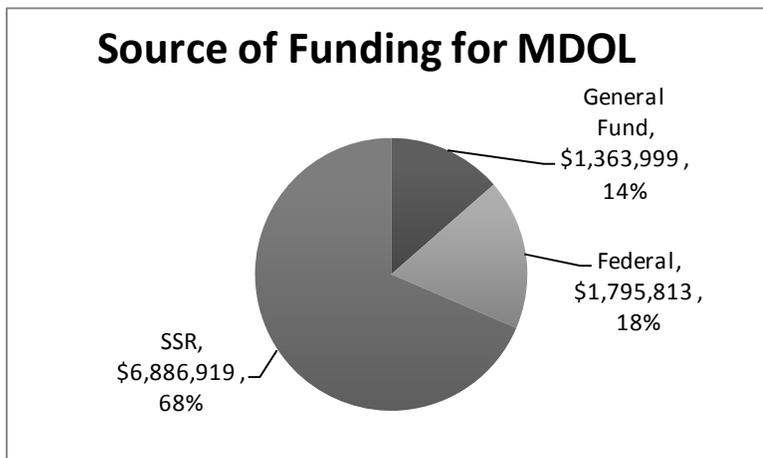
Finally, brand inspection fees (26%) as well as milk inspection and laboratory fees (20%) make up the remainder of SSR (Chart 2).

Second to SSR, federal funding “cooperative agreements” on joint programs make up the second largest piece of the MDOL budget at 18%. Most of this funding comes to Animal Health Division for brucellosis related activities including brucellosis management and

other animal health programs. Additionally, the Meat Inspection Division operates on a 50:50 state, federal cost share which totals approximately \$1.2M.

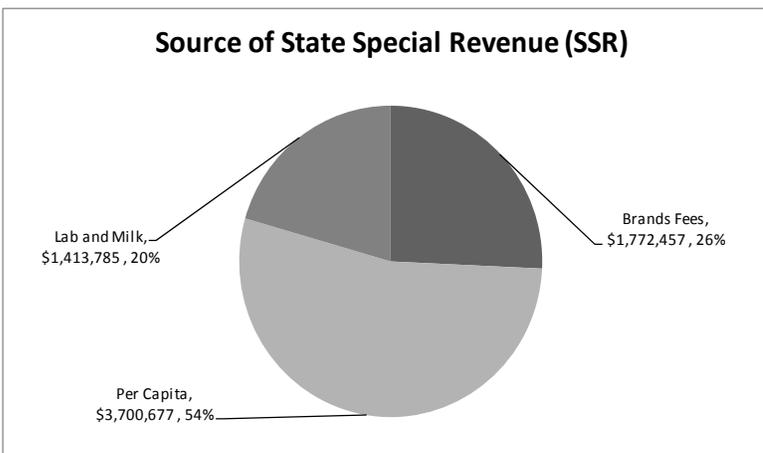
General Fund is the state tax base and at 14%, makes up the smallest portion of the MDOL budget. General fund is critical to ensure that we can meet our mission of animal and public health, however, it is also a funding stream that is most volatile during shrinking state budgets. The 2011 legislature appropriated \$1.4M for DOL.

Chart 1: A large majority of MDOL funding is State Special Revenue which includes Per Capita assessments, laboratory fees as well as brand and milk inspection fees.



As one might expect, expenditures by MDOL closely correlate to the size of the staff. Brands Enforcement has the greatest number of employees. These expenses are compounded by travel as district investigators conduct brand inspections, and investigate theft and animal health violations. The Animal Health Division comes in second, followed by the diagnostic laboratory, Centralized Services and the Meat Inspection and Milk & Egg sections. ☒ mz

Chart 2: Over 50% of State Special Revenue funding comes from the annual per head assessment: Per Capita



USDA Corner: Vesicular Stomatitis Awareness



The recent disclosure of vesicular stomatitis (VS) in New Mexico serves as a reminder to continue to be vigilante in our efforts to identify and respond to potential Foreign Animal Diseases (FAD) and emerging diseases.

On April 30, 2012, vesicular stomatitis virus (VSV) infection (New Jersey serotype) was confirmed on an equine premises in Otero County, New Mexico. The two affected horses had clinical signs and positive VSV serology. One of the two horses had a four-fold increase in virus neutralization (VN) test titer on paired sera collected 7 days apart meeting the requirements for the index case for the nation. Three other horses on the premises show no clinical signs of disease. This index premises was released from quarantine on May 29, however, several additional VSV-infected equine premises were subsequently identified, and this brought the total number of affected New Mexico premises to nine. Five of these remain under State quarantine. All 2012 VSV cases have been New Jersey serotype.

Vesicular stomatitis is a viral disease that primarily affects horses and cattle and occasionally swine, sheep, goats, llamas, and pacas. The incubation period for VS ranges from 2 to 8 days and it is transmitted by vectors. Often, fever and excessive salivation are the first sign of the disease. Early lesions are typically blanched and raised vesicles or blister-like lesions on the inner surfaces of the lips, gums, tongue, and/or dental pad. In addition, vesicular lesions can form on the lips, nostrils, coronary band, prepuce, vulva, and teats. The vesicles swell and break, which causes oral pain and discomfort and reluctance to eat or drink. Lameness and severe weight loss may follow. Affected animals typically recover in about 2 weeks.

In horses, vesicular lesions generally occur on the upper surface of the tongue, the lips, around nostrils, corners of the mouth, and gums. Lesions in horses may also be expressed as crusting scabs on the muzzle, lips, or ventral abdomen.

Affected pigs usually first show signs of lameness caused by foot lesions.

As you may recall, in 2005, Montana confirmed VSV on numerous premises. The index case was confirmed on August 3rd, and the last quarantine was released on November 29, 2005. During this incident, 77 investigations were conducted, with VSV being detect-

ed in 142 animals on 44 premises. The majority of animals affected were horses; however 24 of the positive animals were cattle. Though animals of other species (sheep, goats, and pigs) showed clinical signs suggestive of VSV and were examined during investigations, none of these other species tested positive for VSV.

As in 2005, USDA has activated VSV response procedures for this "VSV season". As such, the following is a brief overview of how suspected or confirmed VSV cases will be addressed in Montana:

1. Accredited veterinarians should immediately issue a verbal quarantine. No susceptible species should leave the premises until status of animal(s) is determined. The Montana State Veterinarians office will issue a written quarantine.
2. Report suspected cases of VSV infection to the Montana State Veterinarian's office (406-444-2043) or the USDA-APHIS-VS-Montana Area Office (406-449-2220).
3. VSV suspects should be isolated from all other susceptible species on the premises.
4. Follow appropriate biosecurity practices, as humans may act as a vector for further VSV transmission.
5. Accredited veterinarians should not collect or submit samples from animals with signs suggestive of VSV, as these investigations must be conducted by a foreign animal disease diagnostician (FADD).
6. Premises with VSV-positive animals will remain under quarantine until at least 21 days after lesions in the last affected animal have healed. FADD's assigned to the cases will perform follow-up examinations to verify lesions have healed.

For more information regarding Vesicular Stomatitis, please find the following web links:

Vesicular stomatitis web page:
<http://goo.gl/1Xzuh>.

Vesicular stomatitis Fact Sheet:
<http://goo.gl/7pZbz>. ☞

By Tom Linfield, DVM

Montana AVIC, USDA-APHIS-VS



Laboratory Corner: Rabies and Botulism

RABIES IN SOUTHEASTERN MONTANA: A litter of puppies and the mother were exposed to rabies virus after a skunk attacked two puppies. One puppy was killed in the attack and the second only had a “scratch” to the head. The attending veterinarian warned of the possibility of rabies but the skunk and the dead puppy were not available for further testing. The owner decided to observe the puppy but in the meantime, several other families adopted four of the littermates. The puppy in question soon developed neurological signs and the rabies virus DFA test was positive. A public health investigation revealed that possibly over 100 people might have been exposed. The bitch and four puppies were DFA negative and two others are currently under quarantine and have yet to demonstrate clinical signs. Multiple families have undergone exposure prophylaxis because of exposure to the rabid puppy.

As a reminder, rabies is endemic throughout Montana and skunks and bats are reservoirs. Rabies should always be considered whenever there is a bat or skunk exposure.

For rabies submissions to be diagnostic, a complete transverse section of brain stem is needed. This applies to all animals except bats and small rodents. Submit brain in only a fresh and refrigerated state. You may submit the entire head or brain and laboratory staff will choose the preferred sites. For bats and small rodents, submit the entire, refrigerated intact body. As silly as this may sound, please do not send live animals.

BOTULISM IN HORSES IN SOUTHEASTERN MONTANA: Four of seven horses in a common paddock became recumbent within four days and the attending veterinarian expected either an infectious or a toxic cause. A complete post-mortem examination including collection of stomach and intestinal contents was performed. There was no evidence of an infectious etiology and heavy metal screens were unremarkable. Botulism was suspected based on the muscle tone weakness, animal alertness, and rapid involvement of multiple animals. This was supported by a laboratory rule out of other causes and the finding of a dead snake in the hay consumed by all the horses. Clostridium botulinum Type C was isolated from the intestinal contents but active toxin was not identified via mouse inoculation test. Unlike in birds, identification of the toxin in

horses is infrequent due to the species’ high sensitivity to botulism and the low levels needed to cause clinical signs.

The best samples for diagnosis of botulism in horses are immediately frozen stomach and intestinal contents collected near the time of death. Close communication with the laboratory before sample collections are made will provide the best opportunity for a diagnosis.

E-MAIL SIGNATURES AND LABORATORY SUBMISSIONS: E-mailing constitutes a legal means for submitting testing requests and this also includes regulatory testing when submissions require a signature. All test submission requests should be sent to and will be reported from the MVDL e-mail, livdiagnostictlab@mt.gov ✉

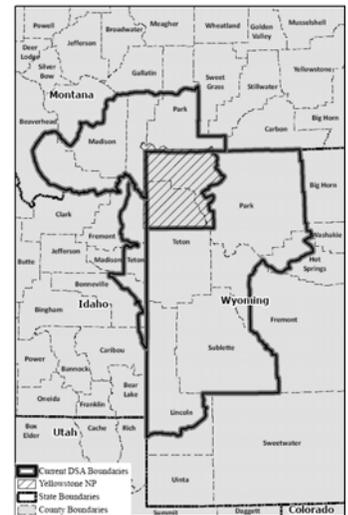
By Bill Layton, DVM. Director of Montana Veterinary Diagnostic Laboratory

(Brucellosis Update continued from page 1) subject to other states brucellosis requirements, or at worst the state losing brucellosis class free status.

One area that we must address is how we monitor compliance with regulations. While brand enforcement provides us a tool that few other states can match, the DSA does not fall on county boundaries, and therefore, brand inspections for movement from the DSA are not always done. The temporal nature of brucellosis risk (highest at the beginning of the calendar year and progressively decreasing for the remainder) adds additional complexity to compliance. To address these demands, I see that a test requirement on DSA breeding cattle of any age (like Wyoming) and movement permitting are worth considering. In its most basic form, permitting would require that producers inform MDOL when cattle are being moved into and out of the DSA. This information would be invaluable when reviewing cattle use of the DSA and monitoring how testing requirements are put into practice.

BISON MANAGEMENT: At the time I write this, all Yellowstone National Park (YNP) bison have been returned to the Park. Since a federal judge blocked the use of a helicopter for bison operations due to a perceived

(Continued on page 6)



DSA's of Idaho, Montana and Wyoming
Map credit: Bill Kelley, USDA-APHIS-VS Western Region



Bison operations on the west side of YNP took many man hours this year. In this picture is Bridger Cunningham, Shane Grube, and Marty Zaluski.

Montana Department of Livestock

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

Staff Corner: Amy Patterson



I started working at the Department of Livestock in July 2008 as a license permit technician. In May 2009, I took a new position as Brucellosis Program Compliance Specialist.

I work with most things brucellosis related in the Designated Surveillance Area, including monitoring herd plans, tracking brucellosis testing, and processing reimbursements for testing.

I graduated from Michigan State University with a degree in animal science, and in May 2008, decided to pack my horse and move to Helena, Montana. Since being out here, I've enjoyed horseback riding, mountain biking, and exploring the state. I also met and married my husband, Corey, and we like to spend our time camping, hiking, gardening, and appreciating the great outdoors. ☺ ap

Brucellosis Update (cont'd)

threat to grizzly bears, staff from numerous agencies conducted nearly daily operations between May 9 and early June to pressure the animals back into YNP. The lack of a helicopter was a significant challenge because bison could only be moved short distances towards the park and often moved back to their original locations outside the park by the next day. Because of a significant number of females with calves, lethal removal was not an option we wanted to pursue; however, we were able to use a seldom-employed technique of loading 27 bison on trailers and transporting them to the park interior. MDOL, Fish Wildlife and Parks, USDA-APHIS, and YNP all committed resources (including trailers) to the operation, which went smoothly with no injuries to animal or man. ☺ mz

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