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Inspection Service

Veterinary Services

Strategy and Policy

Ruminant Health Center

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Review of Montana's Brucellosis Management Program, 2022

A Review of Montana's Brucellosis Management and
Mitigation Activities

2022 Review of Montana's Brucellosis Management Program

Dates of the Onsite Review: September 20 - September 22, 2022

USDA Animal and Plant Health Inspection Service (APHIS) Review Team Members

- Dr. Aimee Hunt, Brucellosis Epidemiologist, APHIS, Veterinary Services (VS), Ruminant Health Center (RHC)
- Dr. Mark Camacho, Brucellosis Epidemiologist, APHIS, VS, RHC
- Dr. Avery Strait, Cattle Health Epidemiologist, APHIS, VS, RHC
- Randy Wilson, Animal Identification Coordinator, APHIS, VS, Field Operations (FiOps)
- Lacey Manas, Animal Identification Coordinator, APHIS, VS, FiOps

USDA APHIS Montana Employees Joining in Person

- Dr. Scott Beutelschies, Montana Area Veterinarian in Charge (AVIC), APHIS, VS, FiOps
- Dr. Janet Hughes, Montana Epidemiology Officer, APHIS, VS, FiOps
- Yvette Leidorf, Animal Identification Coordinator, APHIS, VS, FiOps

Montana Department of Livestock (MDOL) Employees Joining in Person

- Dr. Martin Zaluski, State Veterinarian
- Dr. Tahnee Szymanski, Assistant State Veterinarian
- Dr. Brad DeGroot, Brucellosis Program Veterinarian
- Leslie Doely, MDOL Brands Division Administrator
- Dan Bugni, MDOL Brands Regional Supervisor

Montana Department of Fish, Wildlife and Parks (MFWP) Employees Joining in Person

- Lauri Brown-Hanauska, Wildlife Project Facilitator

Review Objectives

- I. Review the adequacy of the state's brucellosis rules and infrastructure to prevent the spread of brucellosis beyond the Designated Surveillance Area (DSA).
- II. Assess the enforcement of state and federal brucellosis rules.
- III. Assess cattle surveillance, diagnostics/laboratory capability, and producer education and cooperation.
- IV. Assess wildlife surveillance and risk mitigation activities.
- V. Evaluate DSA boundaries, testing, and movement restrictions for overall effectiveness.

Executive Summary

This is a follow up brucellosis review to USDA APHIS' initial Montana program review in 2019 and therefore will not cover all the specific sections in as great a detail as the initial review.

The review team requested brucellosis program data from MDOL during the spring and summer of 2022 and met with Dr. Martin Zaluski, Montana state veterinarian, and other members of his executive team during September 20-22, 2022.

Since the previous review, Montana's brucellosis program veterinarian has changed with Dr. Brad DeGroot starting in the position a week before the 2022 review was conducted. Montana's compliance inspector is also changing positions within MDOL after the 2022 review and has played a key role in monitoring movement testing compliance. There have also been staffing changes with a new VS AVIC, a federal veterinary medical officer vacancy since the previous review and challenges with highly pathogenic avian influenza deployments over the last year.

Based on a recommendation from the previous review, Montana has developed an algorithm to evaluate any potential changes to their DSA boundary. There was one expansion during the review period which had support from the MFWP, highlighting the strong working relationship between MDOL and other state agencies. Another rule change during the current review period was to remove the requirement for herd management agreements and requests for variances for routine management practices which will allow the state to focus on non-compliance issues. MDOL will still require herd management agreements for anything that is not part of routine management practices. MDOL will be monitoring animal movements with corresponding test records similarly regardless of having a herd management agreement or not and does not anticipate any increase in non-compliance.

Accredited veterinarians and the cattle industry appear to be very engaged and cooperative with the Montana brucellosis program and recognize that the DSA requirements are necessary to ensure continuity of business in an area with endemic wildlife disease. This engagement and cooperation is a result of clear, consistent messaging and the partnership that MDOL has built with other agencies and stakeholders.

MDOL is continuing to pursue options to improve their ability to monitor testing compliance associated with animal movements compared to the annual retrospective analysis method currently employed. MDOL is in the process of developing an electronic brand system but currently performs a lot of manual data entry.

Montana's DSA has approximately 400-450 seasonal and resident herds consisting of about 108,000 cattle and domestic bison. There is excellent producer compliance with annual herd testing. See the table below for details.

Fiscal Year (FY)	Inventory	# Head Tested	% Tested
FY 2019	107,000	90,899	85%
FY 2020	114,000	83,359	73%
FY 2021	123,523	104,791	85%

The review team visited two livestock markets, one slaughter plant and met with three accredited veterinarians. Overall, the markets and plant had processes in place to sample DSA animals, were knowledgeable about the DSA rules, and supportive of the program. The review team recommends ensuring that all establishments have up-to-date DSA maps, ideally with Wyoming and Idaho DSA boundaries marked as well. There appeared to be interest in further training and education around the brucellosis card test used in livestock markets and usage of Mobile Information Management (MIM) software.

The Montana Veterinary Diagnostic Laboratory is integral to the success of Montana's brucellosis program. They are in the process of building a new laboratory to further expand their operations and continue to provide quality service. The review team heard concerns about test result timing that resulted in some cull cattle being tested twice, once upon leaving the farm and again at the market since test results were not available. The review team was unable to evaluate the timing and determine whether this was a rare occurrence or standard during their visit.

Wildlife surveillance is conducted through live-animal capture on a rotating basis around the borders of the DSA boundary. MDOL works closely with MFWP to prioritize the area for sampling, though there are challenges with obtaining permission from some landowners to allow capture of wildlife on their lands. One area has been sampled less frequently and may need to be revisited during the next round of sampling or consider using another surveillance modality.

MDOL and VS Montana work closely to ensure the continued success of Montana's brucellosis program. The review team recommends continuing to strengthen this working relationship and ensure that timely communication and program data sharing occurs between all parties. MDOL noted that having an AVIC located in the state has been very valuable.

Conclusion

Montana has demonstrated to the USDA APHIS review team that they are properly administering the brucellosis program in their state to manage their DSA and prevent infection from escaping the endemic wildlife zone. This fulfills the United States Animal Health Association's request to regularly monitor Greater Yellowstone Area (GYA) states and their brucellosis programs. USDA plans to review Montana's brucellosis program again in 2025.

Recommendations

1. Develop a better system/strategy to monitor testing compliance associated with animal movements to achieve more real-time compliance.
2. Prioritize hiring a compliance inspector to continue reconciling test charts with animal movements.
3. Update the livestock market lists of DSA producers quarterly to twice yearly to stay current.
4. Evaluate timing of reporting lab results to producers to avoid unnecessary resampling of animals at markets.
5. Develop a backup plan for veterinary service at the livestock markets should the accredited veterinarians retire or are otherwise unavailable to service the market.
6. Continue to collaborate with MFWP to ensure wildlife surveillance is conducted in all areas of concern around the DSA boundary or investigate alternative methods of risk assessment if wildlife surveillance is unable to be performed.
7. Continue the current level of cattle surveillance, compliance monitoring, laboratory efficiency, customer service and producer education for the brucellosis program.
8. Continue to collaborate with other GYA states to maintain consistency and transparency.
9. Develop data entry and sharing standard operating procedures to ensure all program data is available in a timely manner to State and Federal personnel involved in the brucellosis program.

Request from MDOL to USDA APHIS VS RHC:

1. Consider updating the Center for Epidemiology and Animal Health (CEAH) risk assessment ("Brucellosis Regionalization Risk Assessment Model – December 2014") to estimate the risk of *Brucella abortus* being present and undetected in shipments of breeding cattle leaving the DSA to provide further evidence of the strength and success of the GYA states' brucellosis management plans.
 - a. RHC will facilitate conversations regarding the update to this risk assessment to evaluate best use of resources.
2. Continue USDA APHIS funding to support this important program.
 - a. RHC agrees that funding the brucellosis program is important to its success.

3. Re-evaluate the cutoff values for the Fluorescent Polarization Assay (FPA) screening test in the GYA testing algorithm to further investigate any differences between the FPA plate and FPA tube. Additionally evaluate the probability of true infection with suspect FPA and negative BAPA test results.
 - a. RHC recognizes this concern and will facilitate conversations with CEAH to explore options.

Request from VS Montana to USDA APHIS VS RHC:

1. Continue to support and increase access to data and conversion to electronic record-keeping.