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Review of Wyoming's Brucellosis Management Program, 2023

A Review of Wyoming's Brucellosis Management and
Mitigation Activities

2023 Review of Wyoming's Brucellosis Management Program

Dates of the Onsite Review: May 16 - May 18, 2023

United States Department of Agriculture (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. Jennifer Siembieda, Assistant Director, APHIS, VS, RHC
- Dr. Avery Strait, Cattle Health Epidemiologist, APHIS, VS, RHC
- Randy Wilson, Animal Identification Coordinator, APHIS, VS, Field Operations (FiOps)
- Lindy Trapp, Animal Identification Coordinator, APHIS, VS, FiOps

USDA APHIS Wyoming Employees Joining in Person

- Dr. Don Beckett, Colorado Area Veterinarian in Charge (AVIC), APHIS, VS, FiOps
- Dr. Samantha Bruce, Acting Wyoming AVIC, APHIS, VS, FiOps
- Dr. Kelsie Speiser, Wyoming Epidemiology Officer, APHIS, VS, FiOps

Wyoming Livestock Board (WLSB) Employees Joining in Person

- Dr. Hallie Hasel, State Veterinarian
- Dr. Teckla Webb, Assistant State Veterinarian
- Lee Romsa, WLSB Brand Commissioner

Wyoming Game and Fish Department (WGFD) Employees Joining Virtually and in Person

- Dr. Sam Allen, Wildlife Veterinarian
- Hank Edwards, Wildlife Health Laboratory
- Jared Rogerson, Wildlife Disease Biologist

Wyoming State Veterinary Laboratory (WSVL) Employees Joining Virtually and in Person

- Dr. Kerry Sondgeroth, WSVL Interim Director

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 program review to USDA APHIS VS' Wyoming program review in 2020, which was conducted virtually due to travel restrictions and had no significant findings.

The review team requested brucellosis program data for the previous three federal fiscal years (FY2020-2022) from WLSB in early 2023 and met with Dr. Hallie Hasel, Wyoming State Veterinarian, and other members of her team from May 16-18, 2023.

WLSB maintains a robust program to prevent brucellosis from leaving the DSA. Their primary strategy relies on individual animal testing as test eligible cattle leave the DSA due to change of ownership, intrastate or interstate movement or slaughter. Through promoting voluntary Brucellosis Mitigation Plans, WLSB encourages regular whole herd testing, which supports earlier disease detection and less risk of intraherd or interherd spread. WLSB also maintains a close relationship with WGFD to conduct wildlife surveillance, both on a regular, rotating basis and to increase surveillance in areas of interest.

Since the previous review, both State and VS FiOps in WY have had significant staffing turnover, including the following key positions of State Veterinarian and brucellosis program manager and for the AVIC and VS area epidemiologist, respectively. WLSB has contracted the previous State Veterinarian to help with this transition but continues to have additional vacant positions throughout the review period, which caused challenges in performing some duties. This turnover has resulted in a loss of program disease knowledge and experience as well as created gaps in communication and working relationships that are impacting program management. During the in-person review, a recently affected herd was discussed, and the review team learned of several non-routine decisions that were made without discussion with RHC brucellosis program staff. The review team requested WLSB and APHIS VS field operations that non-routine affected herd decisions be discussed with RHC brucellosis program staff.

There continue to be concerns about the cooperative State-Federal brucellosis program data and information access for VS FiOps personnel in WY. The VS area epidemiologist is actively engaged with WLSB personnel to facilitate transfer of electronic records into Surveillance

Collaboration Services (SCS) and address some ongoing issues. During the last review period, WLSB noted they had secured approval to store data describing brucellosis program disease activities on VS information systems. The review team was unable to verify if this process is fully operational as VS FiOps in WY and WLSB were in the process of addressing the ongoing issues. The review team recommends that WLSB and VS FiOps in WY create standard operating procedures for data management and entry.

As noted above, WLSB has developed a risk assessment questionnaire to tailor a voluntary Brucellosis Mitigation Plan to each producer. This questionnaire and Plan are an excellent tool to promote education, outreach, and the value of regular herd tests. However, in discussing this process the review team identified areas for improvement including developing a standard process for evaluating the risk assessment to determine level of risk and further recommendations. The review team also recommends sharing this information, as able and at minimum the summary and trend information, with the VS area epidemiologist to improve cooperation between agencies and inform decision-making in the case of a non-negative detection.

During the data request, WLSB provided producer and cattle numbers by county, but since the DSA includes partial counties as well as commuter herds, they did not have a DSA specific inventory number for commuter versus year-round grazers. The review team recommends WLSB investigate options to better determine a denominator for animals and herds within the DSA, especially those that graze year-round to better evaluate the success of their program and outreach strategies. Additionally, during the records review, the review team noted that WLSB has regularly de-obligated funding. WLSB now has a new financial analyst and will be tracking cooperative agreement funding to ensure it is used appropriately and any mid-year requests are justified.

WLSB is in the process of improving outreach to stakeholders through their email and newsletter processes. Most of the accredited veterinarians and producers in the DSA are very experienced and knowledgeable about the program, though it was noted during a livestock market visit that more accredited veterinarian and producer education and outreach would be helpful.

WLSB and the Brands Department work very closely together since they are in the same agency. The brand inspectors are very involved in their areas and knowledgeable about their producers. During the presentations, the brand inspection process was described in detail including brand inspectors verify that any cattle leaving the DSA have a current brucellosis test or a DSA box will be marked on the brand inspection form to inform the livestock market which cattle to test. Due to this process, WLSB does not expect any non-compliant movements outside of their DSA aside from smaller hobby producers who may not know the rules. The review team recommends WLSB consider other avenues of outreach for non-traditional producers to ensure compliance.

During the livestock market visits, several items of concern were noted. The review team recommends that WLSB work with VS FiOps in WY to conduct more regular market visits with an educational approach to ensure compliance with State and Federal regulations. The review team noted that very few of the paper brand inspection forms had the DSA box marked correctly. Without the DSA box marked routinely, the market relies on checking the owner's county or

address to determine whether cattle need to be brucellosis tested which may allow for cattle to be missed. The review team recommends WLSB evaluate the paper form and follow up with the brand department about their processes. The review team also noted some cattle moving directly to an out of state slaughter plant may not be tested and recommends that WLSB follow up and create a process to regularly review these movements to ensure compliance. The review team also noted that metal vaccination tags were not closely monitored or controlled in one market, which could allow for misuse.

For markets that are unable to test cattle prior to the sale, there are several challenges to receiving test results from WSVL with the loss of the rivanol test to run in addition to a buffered acidified plate antigen (BAPA) at the market. The review team recommends that WLSB work with VS FiOps in WY to create a standard protocol for whom the market veterinarians should consult in the case of a non-negative and how a decision is made. The review team recommends ensuring that all establishments have up-to-date DSA maps, ideally with Montana and Idaho DSA boundaries marked in addition to Wyoming's DSA boundaries.

WSVL has also had staff turnover and currently has a rotating interim director. Overall, the lab is functioning well and had some questions about the testing protocol which the review team addressed. Challenges with delayed submissions and inadequate sample quality was noted, especially from some of the custom slaughter plants. WLSB and VS FiOps in WY are working to address challenges with shipping from the plants and supported WSVL creating a protocol to determine when a sample is untestable. In the outreach materials WLSB is creating, they had planned to emphasize that slaughter surveillance is voluntary in State inspected plants which is contrary to maintaining Class Free Status in [9 CFR Part 78](#). However, the review team informed WLSB that slaughter surveillance is required in State and Federally inspected plants and as a result this will be updated in the outreach material. The review team recommends that WLSB create a method to track slaughter plant surveillance based on plant type and consider requiring plants submit samples on test eligible animals and incentivizing submissions. Otherwise, WLSB should further expand and monitor movement testing to ensure animals moving direct to slaughter are tested prior to moving.

Wildlife surveillance is conducted primarily through samples collected from elk through the voluntary hunter program and feedground surveillance. Most feedgrounds have transitioned to a dispersed feeding strategy and vary start and stop dates to decrease opportunities for brucellosis transmission among elk. WGFD has developed several educational and outreach materials to help hunters submit quality samples and has developed a lottery to incentivize sample submission. WGFD is currently using drones to monitor elk activities that aid in decreasing interaction with cattle herds. Drones are a very effective tool, especially in challenging terrain. There was a concern that due to the exceptionally harsh winter in 2022-2023, elk were noted in new areas which may lead to disease detection in unexpected locations this upcoming fall.

Conclusion

Wyoming has measures in place to properly administer the brucellosis program in their state to manage their DSA and prevent infection from escaping the endemic wildlife zone. The recent State and Federal staffing turnover have created significant challenges in fulfilling the

cooperative programmatic activities which may hinder overall implementation; however, with additional training and collaboration, the review team is hopeful this situation can be improved.

Recommendations

Communication and collaboration

1. Renew interagency meetings to strengthen working relationships and improve communication and collaboration to ensure the success of the cooperative State-Federal brucellosis program.
2. Continue to collaborate with other Greater Yellowstone Area (GYA) states to maintain consistency and transparency throughout their brucellosis management plans.
3. Continue to collaborate with WGFD to ensure wildlife surveillance for brucellosis is conducted in all areas of concern around the DSA boundary and other areas in the state.
4. Develop communication standard operating procedures for non-negative brucellosis test results and follow-up including affected herd management, especially if non-routine decisions are considered.
5. Continue building relationships with State, Federal and custom slaughter plants to maintain and encourage required and voluntary slaughter surveillance for brucellosis. Develop method of tracking sample submission to ensure compliance.

Data management

6. 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.
7. Develop standard evaluation criteria for brucellosis herd mitigation plans to ensure recommendations are applied appropriately and discuss evaluations with Federal personnel involved in the brucellosis program.
8. Consider methods to better evaluate DSA inventory both by herd and individual animal to improve understanding of brucellosis surveillance numbers, disease prevalence and other metrics.
9. Develop method for tracking cooperative agreement funds for brucellosis management and request to decrease de-obligated funds.
10. Develop a system/strategy to monitor testing compliance associated with animal movements and correlated official identification with brand inspection to achieve more real-time compliance.
11. Continue Mobile Information Management (MIM) outreach and education to increase use of electronic data systems.

Livestock markets, slaughter plants, producers

12. Evaluate alternative education and outreach methods to reach hobby farmers and others that may not understand the DSA rules. Continue to educate all producers about brucellosis and DSA rules.
13. Ensure the DSA box on the G-slip is consistently marked by the producers or brand inspectors or develop another method to allow the market to clearly tell which cattle should be tested.

14. Regularly visit livestock markets to ensure compliance with DSA rules and adequate operations, including accounting for official identification devices.
15. Develop a protocol for how to handle brucellosis non-negative cattle at the livestock markets or other clear guidance in cooperation with VS FiOps in WY and RHC brucellosis program staff.
16. Update the livestock market lists of DSA producers quarterly to stay current.
17. Continue building relationships with State, Federal and custom slaughter plants to maintain and encourage required and voluntary slaughter surveillance for brucellosis. Develop method of tracking sample submission to ensure compliance.

Request from WLSB to USDA APHIS VS RHC:

1. Continue USDA APHIS VS funding to support this important program.
 - a. RHC agrees that funding the brucellosis program is important to its success.
2. 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 the Center for Epidemiology and Animal Health (CEAH) to explore options.
3. Consider an additional test for the market veterinarians to run in series with the BAPA now that the rivanol is no longer available.
 - a. RHC will evaluate whether another test can be used in conjunction with the BAPA to give the market veterinarians more confidence in the results.
4. Resume work on the risk mapping project.
 - a. RHC recognizes the value this project would add to Wyoming's brucellosis program management and discussed WLSB working with the VS area epidemiologist and CEAH to resume this project.

Request from VS Wyoming to USDA APHIS VS RHC:

1. Continue to support and increase access to data and conversion to electronic record-keeping.
 - a. RHC recognizes the value of electronic record-keeping and supports local access to data as it helps inform decisions and strengthens the overall brucellosis program.