

Wyoming Brucellosis Coordination Team

April 13, 2016

Pinedale, WY

I. Welcome and Introductions.

Chairman Galey called the meeting to order. Members in attendance: Bill Williams (DVM, Former G&F Commissioner), Scott Talbott (WGFD Director), Senator Fred Emerich DVM (WY State Senate), Albert Sommers (WY State Representative, Rancher), Joel Bousman (Rancher, Sublette County Commissioner), Charles Price (WG&F Commission president), Jim Logan (WY State Veterinarian), Karl Musgrave (WY State Public Health Veterinarian), Will Laegreid (WSVL Director), Mary Wood (WGFD Veterinarian), Terry Pollard (WY Outfitters and Guides Assoc), Scott Werbelow (WGFD), Doug Miyamoto (WY Dept Agriculture Director), Mike McDole (USDA APHIS WY ADD), Bruce Hoar (COANR), Barton Stam (UW Extension), Rob Hendry (Rancher, Natrona County Commissioner), Jose Castro (US Forest Service), Jessica Crowder (Governor Matt Mead's Office), Shawn Madden (Madden Brothers Livestock Yard), John Keck (National Park Service), Bill Lambert (Rancher).

Guests: Ryan Clarke (USDA APHIS Regional Brucellosis Epidemiologist), Noah Hull (UWYO), Dannele Peck (UWYO), Hank Edwards (WGFD), Brandon Scurlock (WGFD), Emily AlMBERG (Montana Fish Wildlife and Parks), Tim Woolley (WGFD), Peggy Yih (National Academy of Sciences, on phone)

II. WY State Vet Report

Dr. Jim Logan (JL) provided the WY State Veterinarian report to the group (see attached file for complete details). Wyoming currently has two livestock herds under quarantine for Brucellosis infection – one in Park County, and one in Sublette County. The Park County herd had one reactor and has undergone two negative whole herd tests and will have their third test after calving, likely in July. An elk source was identified as most likely. The one contact herd has been tested and all animals were negative. The Sublette County herd had 11 reactor animals that were sent to Wyoming State Vet Lab for further work-up. The herd had one negative whole herd test, but two positive animals were detected on the second whole herd test. Those two animals were slaughtered on-site and tissues collected. No further tests are scheduled until after calving. The Wyoming Livestock Board (WLSB) is working with the contact herds (about 7 herds, all of which have tested negative and released from quarantine) to figure out if and how the affected producer can use public lands. The requirement for three negative whole herd tests starts anew for this herd. The WLSB is meeting soon to get clarification on some of the Chapter 2 Brucellosis rules and will report back to the group. Monitoring of cattle from Bighorn

and Sheridan Counties continues – since January 1, 2015, 185 producers have tested a total of 3,263 head. Other states are watching carefully to see what WY is doing in terms of surveillance in this area. WLSB pays for testing and would encourage individuals to do voluntary testing. The USDA/APHIS has a call for comments on the combined Brucellosis/Tuberculosis rule – this is a long document full of a lot of details. JL strongly requests that the rules be user-friendly and common sense. He will be providing comments on behalf of WLSB and personally.

Albert Sommers (AS): This group should comment on the Rules if appropriate. Have producers at high risk in the Bighorns been identified and asked specifically to test their animals?

JL: Yes, WLSB has reached out to all producers with personal contact with high risk ones, have had several (5 or 6) meetings with producers and with Wyoming Game and Fish Department (WGFD). Have had some response, maybe a total of 10,000 head tested (there are a total of 80 – 90,000 cows in those two counties). WLSB continues to work with them. The preference is to work with the producers on a voluntary basis, rather than extend the Designated Surveillance Area (DSA).

Joel Bousman (JB): What is the situation with herd plans for affected and contact herds? Will common grazing impart new requirements for contact herds? How about the elk in the area?

JL: We are still working on final quarantine release plans for infected herds. Most of the contact herds already have a Brucellosis herd plan in place. Dr. Winslow is working with contact producers. All quarantine release plans are in place, and a common grazing plan is being worked on. No animals will be turned out onto grazing allotments unless they test negative. If a positive animal is found, obviously the plans would need to be changed. The owner of the Sublette County infected herd thinks that common grazing may be possible with one cow-calf herd and steers and spayed heifers.

AS: Let's say there are positive cows post-calving. Is it still possible to turn out on common grazing?

JL: That may be a possibility. The number one priority is to protect other herds from infection. Number two is to stay within the bounds of state and federal rules. We don't know if the two additional cows are from an initial exposure or is it a new exposure? Both cows were open when diagnosed, had been pregnant at a previous herd check. If those cows aborted in the herd, then there may be others.

JB: It is critical that other permittees know what's going on. All others must know what additional requirements there may be.

JL: Yes, we are working with the other producers. There will be a meeting of other grazers soon. JL will not allow animals to be turned out without adequate knowledge of the situation. Co-mingled cow-calf herd will need to undergo additional testing in the fall. Other herds, if already tested negative, will not require extra testing if there were just fence-line contact.

Charles Price (CP): Did the infected herd or contact herds do any adult booster vaccination for Brucellosis?

JL: Affected herd has boosted heifers, and perhaps has done an adult booster recently.

CP: Boosters may help in the infected and contact herds.

JL: Dr. Winslow knows better the details of vaccination in those herds.

Bill Williams (BW): Did the herd plan include adult vaccination?

JL: Yes, they have done at least one adult vaccination.

BW: The two cows identified in March, was there any history of elk contact during the winter?

JL: There was no viewed history of contact with elk. The manager said that the elk have been displaced frequently by wolves.

BW: Were the initial 11 head necropsied?

JL: Yes, and all but one were culture positive. The most logical explanation is that exposure was from an elk source that occurred pre-turnout and post-calving, 2015. The cows went out open, were bred, then came up positive in the fall.

AS: Is it practical to move elk away from cattle in the winter? There is a lot of snow in that area. Since turn out of cattle will be on Forest Service land, will Forest Service help allow that to occur?

JL: Forest Service requirements are that permittees must follow the appropriate rules.

Jose Castro (JC): As long as the rules are met, FS won't impede turn out.

JB: This hasn't always happened, need to make sure to avoid any problems.

AS: Please allow for flexibility to make grazing work for those affected.

JC: Yes, please contact me if there are any concerns.

Rob Hendry (RH): Adult vaccinations – are they doing anything? Are they worthwhile?

JL: If we wouldn't have been vaccinating with boosters, there may have been a lot more infected. We're not sure what the coverage was on this herd.

RH: It would be good to know and record the vaccination history

BW: These were 11 cull cows?

JL: The initial group of 5 were cull cows, the next 6 were pregnant and part of the whole herd test.

JB: Do you know the ages of reactor cows to know if they had additional vaccinations?

JL: That information is available. It is my firm belief that booster vaccination helps.

Frank Galey (FG): If possible it would be good to share that information with this group.

JL: We will share as much as possible. The affected herd quarantine release plan is based on a standard template for every producer – that template could be shared.

AS: So far, all animals have been paid for. If it is a protracted problem, how will they get paid?

JL: Several years ago, \$500,000 was put into an account with the State Auditor. JL can access this money for removal of animals for Brucellosis, Tuberculosis, and Scrapie. This occurred after USDA changed rules that required depopulation. JL has rules to follow to pay a producer for removed animals. Market value must be determined, the animal must go directly to slaughter, euthanasia, or to a lab for diagnostic workup, and transportation will be paid for.

AS: Has the pot of money been raided?

JL: I don't think so, it may be up to \$531,000 now.

FG: We would appreciate any update you can provide.

JL: In the Chapter 2 rules, Section 9 (a)(i). Aug 1 to Jan 31 is a change of note. This allows flexibility to producers within the DSA to test and move cattle. This change is congruent with Montana rules.

AS: It is important to make sure that producers in the DSA are aware of this change.

III. MT / ID Case Updates

Eric Liska (EL): Montana has continued to do a lot of testing. Only one herd currently under quarantine, a domestic bison herd. This herd is still finding positive animals on annual tests. MT Department of Agriculture has completed an internal audit – they have about 390 herds that utilize the DSA, 78% of those herds are >200 head. Compliance with testing requirements is

very good. Those that are non-compliant tend to be <10 head. 71,000 tests were performed in FY2015, 73,000 head of cattle in the DSA.

Shawn Madden (SM): Is the domestic bison herd close to YNP?

EL: About 30 miles, commingling with elk that have high seroprevalence is the likely source. There are lots of wolves in the area, too. The impression is that elk mingle within the bison herd when wolves are present.

RH: Is there an increased acceptance of bison outside of YNP in MT?

EL: Yes, we now do less hazing of bison north of west Yellowstone in the spring. The tolerance zone has increased in size, based on a decision by the Governor of MT.

RH: There are a lot of cattle in that valley.

EL: IMBP is involved. Land owners will typically keep bison separate from cattle.

Ryan Clarke (RC): Idaho update. Latest infected herds are from 2012. Fremont County herd was released from quarantine in May 2015, and an assurance test has been performed. Bonneville County bison herd was also released from quarantine in 2015. There are two new slaughter plants scheduled to open soon in ID to slaughter cows. All the cows killed at these plants will be tested for Brucellosis. ID had a lot of snowfall this winter, this caused a lot of elk depredation on haystacks, so IDFG committed \$500,000 for fencing. Elk hunter survey in 2015 – a total of 154 usable samples were collected from Eastern ID, most areas have very low to no positives. Further north, on the border with MT and WY there are slightly more positives. It is hard to make a lot of conclusions based on these results since sampling is not intensive.

JL: Can you tell us which slaughter plants and how many cows are tested for Brucellosis nationally?

RC: Any cull cow killed in WY, ID, or MT is tested. And a portion of those killed nationwide are also tested.

IV. Research Updates

Noah Hull (NH): Our new PCR test is coming along nicely. We collected 62 samples from YNP bison that were slaughtered in the second week of March. The Sublette County cattle were also purchased for our test. Primers are being validated over the upcoming summer. By the fall, we hope to present the results to the group. So far, our test can differentiate between S19, RB51, and field strain on tissue. Adult vaccination, performed by Alex Kesterson, showed that 3 vaccinations did reduce infection and shedding.

Dannele Peck (DP): Cost of a herd becoming infected. The length of quarantine period and timing of quarantine are the most important factors in determining the cost of a herd infection. See Dr. Peck's attached power point presentation.

Gerry Andrews (GA): See attached report regarding sub-unit vaccine development and lateral flow assay development.

V. BSL-3 update

Will Laegreid (WL): Some good news to share! Progress is occurring, although slowly. The design phase for the lab has completed review. The pre-bid process is over, will open for bids soon. We hope to move forward with construction quickly, perhaps starting in mid to late May. Things are looking good, we are happy with the quote. The financial support and facility people at UW have been great. The lack of BSL-3 space slows down research a lot. The bad news is that a fire suppression leak and freeze in mid-winter occurred in the incinerator room. The incinerator was shut down and exposed some flaws in the room. We are in the process of evaluating the system, and a fix will not be cheap. This does affect day to day operation in that we can't burn dead animals.

Scott Talbott (ST): Any anticipated completion date?

WL: We expect construction and rebuild to take maybe 10 months, then there are additional inspections by CDC beyond that which are difficult to know how long.

VI. Wyoming Game and Fish Hunter Surveillance Updates

Hank Edwards (HE): See attached power point for full details. In 2015, surveillance was focused on the Bighorns and Hunt Areas 61-64. A total of 11,000 kits were sent out, 5,945 of those to the Bighorns, and an additional 1,400 were handed out in the Bighorns. A total of 1,158 samples were received, 798 suitable for testing. From the Bighorns, 665 were received, 482 suitable for testing, 445 from adults and yearlings – all tested negative. Within the DSA, positive elk were found in Hunt Area 59 (1 positive), 61 (2), 62 (3), 63 (3), and 64 (1). As part of an elk capture study, 58 we captured in the northern Bighorns, 2 tested positive from HA 40 – these were re-captured, slaughtered, and were culture negative. Two other positive elk were detected in HA 66 (which is within the DSA). In 2016, surveillance will focus on similar areas, near the DSA, the Bighorn Mountains, and also the area near Gillette.

VII. WGFD Elk Collaring in the Bighorn Valley

Mary Wood (MW): WGFD was able to scrape together funding from APHIS and the Governor's Brucellosis funding to start this project.

Tim Wooley (TW): See attached power point for full details. The goal of the study is to determine movement of elk out of herd units and among hunt areas, assess migratory movement, and determine timing of movement. Collars were placed on elk from HA 37, 38, 39, 40, and 66. From 17 – 22 of Feb, 58 collars were put on elk – 26 East and 27 West of the Bighorns, and another 7 in the Greybull river area (HA 66). We get two locations per day, the data is uploaded via satellite. The batteries should last for up to 6 years. More collars are planned for 2017-18, with fewer deployed per year. We will do “adaptive collaring” – will target elk in areas where holes in the data may exist.

JL: Thank you for your efforts. Do you collar only cows? How close to cattle were the positive elk?

TW: Yes, only cows are collared, and I don’t know how close the elk were to cattle.

ST: Thank you to the group for support and to Governor Mead.

VIII. BMAP plans for 7 elk herd units – update on public meetings

Brandon Scurlock (BS), WGFD, discussed the plans for revising 7 elk herd unit Best Management Action Plans (see attached powerpoint presentation). The plans were initially put in place in 2006, were updated in 2011, and are due for another update now. Five producer meetings were held in December 2015. Most producers support continuation of elk feeding. There was much support for test and slaughter programs. Producer input varied by location. Public meetings were also held, where there was support to end feeding, some support for feeding longer, and also some support for test and slaughter followed by phasing out feedgrounds.

IX. WGFD Feedground surveillance

BS: WGFD continues with a goal of low density feeding on feedgrounds, and truncating feeding on low-risk sites as early as possible. They discontinued feeding in February on 4 feedgrounds. For surveillance, a total of 557 elk were captured from 15 feedgrounds, 334 yearling and cow elk were bled. The overall prevalence found was 37%. Additionally, 10 seropositive, pregnant elk were sent to USDA APHIS facility in Colorado – as of yet, none of them have aborted. WGFD deployed 48 GPS collars and 17 VIT’s this year. This includes 30 deployed on the National Elk Refuge. On two feedgrounds where the test and slaughter program was used, prevalence has increased to 32% (Muddy Creek) and 57.5% (Scab Creek) in samples collected in 2016.

AS: We need to prioritize feedgrounds based on a risk assessment. Where are the high priority feedgrounds? What projects should be undertaken to reduce the risk? Or are we stuck where we currently are? AS believes we should focus our needs on high risk feedgrounds.

RH: It will be interesting to see what happens next year since we are not vaccinating elk this year (for the first time in decades). If seroprevalence increases to, say, 80% then what do we do?

CP: How about moving feedgrounds? Especially high risk ones?

FG: The solution for each feedground is likely to be unique.

X. Montana Elk Surveillance Update

Emily Almberg (EA), MT Fish, Wildlife, and Parks joined via Webex. See attached power point for more details. Since 2011, MT has started a targeted elk surveillance program, because they were not satisfied with hunter-collected samples. In 2016, 6 out of 16 elk in the Border Herd were seropositive. It is not certain whether these elk mix with the Silver Run Herd. The seroprevalence estimates that MT has cover big blocks of time, however they have seen an increase over time, when comparing prior to 2008 with 2008-2015 data. MT fits elk with collars every year, with the goal of seeing if herds within the DSA are connected to herds outside the DSA. They have placed VITS in a number of seropositive elk and followed them for a number of years. 94% of seropositive elk had a live birth, and in 1 out of 45, *B. abortus* was detected. In the 6% who aborted, *B. abortus* was detected in all of them (3 elk). There is some thought that pregnancy rates may be lower among seropositive cows, although this isn't totally established yet. It may be that seropositive animals are more likely to be older animals, with lower reproductive capability. MT has seen two elk with seroreversions – they were at one point test positive and subsequently determined to be seronegative. They are beginning to remove some of the seropositive elk that they have followed for a number of years – of the three they have killed so far, none of them have been culture positive. In the future, they plan on doing risk modeling, where they will quantify elk to cattle transmission risk.

XI. NAS Review Update

Peggy Yih (PY) from the National Academy of Science joined via telephone: The study of Brucellosis in the Greater Yellowstone Area has been slightly delayed. The team will meet on April 15 and 16 to work more on the report. They believe that a draft report will be available at the end of May or first of June, and the final report to be released by end of summer or start of fall. About a dozen reviewers will be selected and will look at the draft report. PY will send names to the Report Review Committee who select the reviewers. The review process is double blind.

RH: Can we recommend reviewers?

PY: Yes, please submit any names within the next 2 – 3 weeks.

FG: We should send in Hank Edwards, Mary Wood, and Will Laegreid, in addition to those names already submitted.

XII. Legislative Update

AS: Not sure what the budget contained related to Brucellosis. Suspect that the cuts from this past time were fairly small in comparison to what might be coming in the future.

Fred Emerich (FE): Tougher times still to come. The Rainy Day account was tapped this year for about \$221 million.

ST: 1 ½% cut, 10% travel cut, 5% cut in contractual services, department down about \$500,000. Not clear yet what this might mean with respect to Brucellosis work.

JL: At the Livestock Board, Brucellosis has had some cuts, but not to a big degree. Can see some demands coming in the future for funding. If more herds ever become involved, this could be a big problem for WLSB.

Doug Miyamoto (DM): Cutbacks shouldn't impact this meeting. Looks like we can absorb the current cut.

FG: 1 ½% cut internal cut of 3.5% for College of Ag and Natural Resources. Prepare for 10+% over next 3 years. Losing 10 positions at COANR.

FE: I think Ag is getting short shrift in terms of education funding.

AS: Do we need to continue to meet twice/year? Something to think about.

FG: Propose that a smaller group gather to discuss high risk areas. Since part of a BMAP is "Action", we will try to put a few people together to see if there are things we can help with. Plan to meet in the fall, bring back some action items to the group.

BW: Could consider the cost of moving a feedground with the cost of moving cattle away from high risk elk.

Terry Pollard (TP): Feedgrounds and the elk on them are important to the whole state of WY. Sportsmen, outfitters, ranchers, and others all rely on their presence.

Jessica Crowder (JC): The Governor would appreciate seeing an Action Plan from the group.

ST: He has heard that some producers would like to see the meeting later in the spring.

Discussion was that perhaps a Thursday would be the most convenient for the fall meeting.

XIII. Public Comment

Lloyd Dorsey, Sierra Club: It seems that booster vaccines should be encouraged. Recall from the 1998 ID Brucellosis plan = elk proof fencing to prevent commingling and reduce risk to producers. As for the BMAP's, this is the third update, and it seems to be keeping elk feedgrounds in perpetuity. Hope we are learning to discuss some of the issues associated with feedgrounds. Feel the group should be proactive rather than reactive to the issues. CWD is only 12 miles away from feedgrounds, time is of the essence in dealing with feedgrounds. There is a great need to protect the wildlife travel/tourism industry in WY.

Brant Schumaker: Need to keep asking ourselves, what can we do in WY with limited resources to limit risk? One example is that maybe it is better use of dollars to put money into indemnity rather than expensive management such as test and slaughter.

FG: Any further comments? Hearing none, have a safe trip home!

APPENDIX I.

Guest attendees

NAME	AFFILIATION
Stacia Berry	WY Dept of Ag
Brant Schumaker	UWYO
Noah Hull	UWYO
Dannele Peck	UWYO
Gary Hart	USDA/APHIS
David Dewald	WY Attorney General
Brandon Scurlock	WGFD
Hank Edwards	WGFD
Angus Thuerman	WyoFile
Tony Gosar	n/a
Travis McNiven	Senator Barrasso
Don Herriott	USDA
Ryan Clarke	APHIS
Eric Liska	MT Dept of Livestock
Glenn Owings	WY Extension
Lloyd Dorsey	Sierra Club, Wyoming Chapter
John Lund	WGFD
April Peregoy	WLSB
Steve True	WLSB
Lee Romsa	WLSB
Nikki Brunner	Senator Enzi
Joy Ufford	Sublette Examiner