

## Wyoming Brucellosis Coordination Team

November 2, 2016

Greybull, 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), Charles Price (WG&F Commission), Jim Logan (WY State Veterinarian), Will Laegreid (WSVL Director), Mary Wood (WGFD Veterinarian), Scott Werbelow (WGFD), Doug Miyamoto (WY Dept Agriculture Director), Mike McDole (USDA APHIS WY AD), Bruce Hoar (COANR), Barton Stam (UW Extension), Rob Hendry (Rancher, Natrona County Commissioner), Bill Bass (US Forest Service), Jessica Crowder (Governor Matt Mead's Office, via Zoom Video), Bill Lambert (Weston County Commissioner/Rancher).

Guests: Eric Liska (MT Department of Livestock), Noah Hull (UWYO), Brandon Scurlock (WGFD), Eric Maichak (WGFD), Brian Hovinga (WGFD)

### II. WY State Vet Report

Dr. Jim Logan (JL) provided the WY State Veterinarian report to the group (see attached file for complete details). The Park County bison herd (originally quarantined in November 2010) completed three negative whole-herd tests and was released from quarantine in October 2015. Two cattle herds were discovered to be infected with Brucellosis in October 2015. The Park County herd completed three negative whole-herd tests and has been released from quarantine. 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. Another whole herd test performed in May found 2 additional reactors. Those two animals were slaughtered on-site and tissues collected. Another herd test was conducted Oct 31-Nov 1 and results are pending. The herd will remain under quarantine until three negative whole-herd tests have been completed, with at least one being post-calving. The Wyoming Livestock Board (WLSB) worked with the producer, contact herds, USDA APHIS, and the USFS within state and federal rules to allow grazing this past summer.

Albert Sommers (AS): What happens in this herd if the disease keeps simmering along, with reactors occurring from time to time?

JL: The answer depends on the producer, their input is required. If one tests positive, that animal is removed and the “clock” is reset. If small numbers are involved, WLSB can purchase the animals to remove them from the herd. APHIS doesn’t have ‘much’ money to do whole herd buyouts anymore. If the owner wanted to get out of business, their cattle could be sold for slaughter only.

Frank Galey (FD): Question for Dr. McDole, is there an option for APHIS to purchase the herd if the disease continues?

Mike McDole (MM): Can’t say that there is no money, but the trend is to not buy out a herd in such a situation.

Bill Williams (BW): Have they adult-vaccinated in this Sublette County herd?

JL: Yes, they have and also vaccinated replacement heifers.

JL: There is an indemnity account controlled by WLSB with a balance of \$534,197, that can be used to purchase and remove animals affected with Brucellosis, Tuberculosis and Scrapie. WLSB spent \$8,950 from this account this year. Thank you to WSVL for diagnostics, testing, purchase and removal of animals, etc. Also, thanks to APHIS and FS for cooperation to allow grazing.

JL: Chapter 2 rules have been out for comment since last year. Governor Mead signed the latest version on Monday. The changes in the latest version are presented in the attached report.

AS: Thank you to Dr. Logan for working with producers on this, clarification on the date for testing is appreciated.

JL: We will work to get this information out to producers and veterinarians. Extension has been great help as well.

BW: Is the Aug 1 – Jan 31 time frame good only intra-state? Not neighboring states?

JL: Yes, that is correct. Other states have their own requirements.

JL: The Brucellosis Area of Concern (BAC) – consisting of Big Horn and Sheridan Counties. Due to finding seropositive elk in the area, WLSB discussed on September 15 the possibility of requiring a brucellosis test on change of ownership. It was decided to continue to rely on voluntary surveillance. JL feels that we still need better surveillance on cattle on change of ownership. Since 2012, approximately 11,000 tests have been performed on cattle from the two counties. There are about 90,000 head of adult female cattle in those two counties. JL still has concern that with seropositive elk in the area, we don’t want cattle coming out of the region, being sold interstate, and then coming up positive. How big is the risk of this occurring? Not known. WLSB wants more data on elk seropositive and movement of elk.

AS: There are likely very few ranches with substantial elk contact. How many cattle are really at risk? I suspect that it is a much smaller number than the 90,000 total.

JL: I agree that there are few at real risk in the DSA and in BAC. There are risk assessments and herd plans that have been completed in both these areas.

Rob Hendry (RH): At producer meetings, are those herds at high risk paying attention to co-mingling with elk?

JL: Yes, most are aware. The extension meetings have helped. JL is not a proponent of expanding the DSA boundaries. But it is important that we create awareness that early detection is critical.

AS: Three questions, 1. Does the Billings sales barn do a good job of testing? 2. What slaughter testing is now being done for brucellosis? Of the slaughter plants across the nation that do testing for brucellosis, are we sure they do an adequate job of testing GYA cattle? 3. Does APHIS provide funding for testing in WY?

JL: The Billings barns do an excellent job of testing cattle from DSA and BAC. APHIS provides some funding, but the bulk comes from the State of WY.

John Duncan (JS): Used to be that 95% of all test eligible cattle were tested at slaughter. That number is now greatly reduced.

AS: This is another example of the federal government shifting responsibility to the state. **I recommend that the BCT suggest to USAHA to make a resolution to APHIS to re-consider the slaughter testing program and push it to do better testing on slaughter cattle from the GYA.**

FG: We will put together a letter from the BCT to send to the Governor and Senator Enzi.

BW: Along with the testing is the requirement for a good vaccine. I suggest that there is a great need for funding for vaccine research.

JL: Just a reminder that APHIS does not do research, AFRI does. If cattle go through a WY market, any DSA cattle will be tested. But if DSA cattle are sold by private treaty they will be brand inspected and inspectors do not clear cattle unless they are tested as per Chapter 2 rules. Cattle from the BAC are not required by WLSB to be tested, but they are required by MT, SD, and ND to be tested, if they are moving to those states.

AS: If cattle from Big Horn or Sheridan County go through a market are they tested?

JL: Only if the producer requests it. WLSB will pay for those tests.

JL: There was a case of “positive” bison from outside the DSA. Three out of 200 were tested at WSVL and NVSL. The titers dropped over time. The owner said there were lots of dead rabbits in the area, and reports of Tularemia. There is a potential for cross-reactivity between organisms. The positive animals also tested positive for Tularemia (the test is not validated for bison). Those three animals were sacrificed, lots of samples were collected, but no *Brucella* were found. The herd was subsequently released from quarantine. The producer was very cooperative and helpful. The testing was performed prior to interstate shipment. This highlights the potential for cross-reactions and the need for improved diagnostics.

Will Laegreid (WL): It would be useful to have a protocol for such a situation as this is highly likely to come up again.

JL: WLSB purchased these animals through the indemnity fund that was mentioned earlier.

### III. MT / ID Case Updates

Eric Liska (EL): (See attached DRAFT document for further details) Montana only has one herd currently under quarantine, a domestic bison herd. This is a herd of 4,500 test eligible animals and is still finding positive animals on annual tests. The DSA compliance evaluation shows about 90% compliance – that is 90% of herds had testing done. Many of the 10% didn’t sell any animals during the year. There were 67,000 tests done on animals in 2016. We expect to see continued increase in testing. There is currently an environmental assessment ongoing for Yellowstone Bison Quarantine. There is a plan to move bison about 400 miles away from Yellowstone onto Tribal Land. There are 49 bison in a pen at Yellowstone and discussion is ongoing as to what will happen with them. The push is to do the quarantine within the DSA. By MT law, they cannot be transported across the state unless directly to slaughter.

EL: Elk surveillance – since 2011, testing has been done on elk to determine the boundary of the DSA. Each time results come in, the boundary has been changed. In 2016, ‘border elk’ were found positive. These elk are sitting on one ranch that borders land where no cattle are allowed. Wouldn’t be surprised if the DSA is expanded in the next 12 months.

AS: What are the testing requirements for grazing cattle from the BAC moving into Montana?

JL: Any movement requires a health certificate and some movements require brucellosis testing. All sexually intact cattle 12 months of age and over from WY’s BAC must be tested prior to entry into MT.

EL: Every herd could be different, but yes, testing may be required. This is to assure trading partners.

JL: In June, MT changed testing requirements for cattle from BAC. MT Board of Livestock sets the rules and the State Vet has to follow them.

Charles Price (CP): The elk at Mill Creek – how are they transmitting disease to cattle?

EL: Producers in the area say they never see elk. But the year when disease was found in cattle the only open water was a creek shared by cattle and elk.

Bruce Hoar (BH): Idaho update. Latest infected herds are from 2012. Fremont County (ID) herd was released from quarantine in May 2015, and an assurance test has also been performed. Bonneville County bison herd was also released from quarantine in Nov 2015 and an assurance test is to be done in Nov 2016. In 2014 and 2015, ID tested 8,220 and 12,242 DSA cattle, respectively. All were negative. For elk surveillance, ID uses hunter harvested submissions of blood for testing. In 2015, seroprevalence in all elk tested was 7.6%.

#### **IV. Summer Information/educational meetings**

Barton Stam (BaS): A series of informational sessions were held over the summer in Sheridan, Pinedale, Greybull, and Cody. Producer and veterinarian turnout was good, and a lot of information was passed to the people in attendance on subjects from the basic biology of brucellosis to economics of quarantine.

FG: Public education was part of the charge from Governor Freudenthal. Thank you to Barton and the rest of the team that participated. Are there plans to repeat this?

BaS: Yes, but we will need to find funding. An ideal time would be between New Years and calving season.

AS: Risk assessments are important. Maybe this committee (BCT) could recommend to MT that maybe a risk assessment and herd plan could be sufficient for their requirements for cattle moving from the BAC. Would that help?

JL: Wouldn't hurt, but we would defer to the MT State Vet.

EL: MT could consider such a letter, but it may not change the requirements.

JL: Herd plans are voluntary. If they had a risk assessment done, depending on the level of risk, it may waive some requirements, but would not be a carte blanche waiver of Chapter 2 rules.

#### **V. BSL-3 Update**

WL: The news is generally good. The lab is in full construction mode now. Demolition is pretty much complete, and some building has been done. It is challenging to do construction without

a major impact on the diagnostic lab, but the contractor has been good to work with. The incinerator design was very poor, but we are now funded and able to replace it. Expect to have the design and contract at the start of the year. It's been a total reconstruction – down to bare walls. The construction team is very good. The architect is the same as last time, but the engineer is different.

Scott Talbott (ST): Any idea on cost?

WL: I'm not privy to such information, but believe it is more than \$5 million.

## **VI. Research update**

Noah Hull (NH): (See attached Power Point presentation for full details) We are now working on validation of qPCR for *B. abortus* field infections. We designed 34 sets of PCR primers, of which 8 worked as expected. Samples from Yellowstone depopulated bison were collected and we found that the qPCR was 2.3 times more sensitive than culture. The qPCR is also very specific, as it does not react many known serologic cross-reactors.

MM: Will serology still be used as a screening test?

NH: Yes, serology is very inexpensive. But, once a positive serologic test is determined, qPCR could be used instead of, or in conjunction with, culture as a confirmatory test.

JL: What is the next step? When could this test be used?

NH: It's hard to put a specific date on it. We need more samples to validate the test. We can run research samples now, but it could be awhile before the test is validated.

CP: Is there potential for an on-site test?

NH: Probably not. The current equipment is large, and a clean environment is needed.

AS: There were 5 animals that your test did not detect – any thoughts?

NH: It could be that the test isn't 100% sensitive. It could be that the organism has been cleared, but the animal still is seropositive.

## **VII. Wyoming Game and Fish Hunter Surveillance Updates**

Mary Wood (MW): (See attached power point for full details). In 2016, surveillance will focus on the Bighorns and areas around the DSA. There were no seropositive elk from hunter-harvest in the Bighorns in 2015. So far this fall, 544 samples have been submitted, 410 (75%) of which are

usable. From the Bighorns, 301 samples have been sent, 232 are usable, and 1 sample (from Hunt Area 40) has tested positive. We will have more results available at the spring meeting of this group.

#### **VII. North Bighorn Elk movement update**

Eric Maichak (EM): (See attached power point for details) The objective of this study is to monitor and assess the movement of elk among herd units and hunt areas. In mid-February of 2016, 58 elk were captured and collared. This consisted of 26 on the western side of the Bighorns, 25 on the east, and 7 in the Greybull river area. Initial results indicate that 20% of elk move across herd units. Further analysis, using a kernel density model, will help assess movement, with particular attention being paid to the abortion period of Feb 5 – Jun 15. The plans for 2016-17 are to deploy an additional 40 collars, the location of these elk still to be determined. We will update locations and maps and develop movement models.

JL: It would be useful to know when cattle are on certain pieces of ground.

AS: It would be good for WGFD to provide information to producers to let them know that they have elk present on their properties at certain times of year.

MW: The collars have only been on since February, we need more time to develop real risk maps and evaluate where the elk go.

AS: Important to build relationships with producers so that important conversations can be held.

ST: WGFD will remain very sensitive to risk assessments.

RH: Any wolves moving elk on the Greybull River?

Scott Werbelow (SW): No, we don't think that is happening.

#### **VIII. National Elk Refuge Step-down plan update**

Brad Hovinga (BHo): (See attached power point for full details) The overall objective of the plan is to progressively transition from winter feeding of elk and bison on the NER to greater reliance on free-standing forage. Wildlife conditions on the landscape have changed considerably since the 2007 Record of Decision. WGFD does not support proposals that cause significant off-NER conflict. Currently, the draft plan allows for a slower transition to reductions in the feeding season in an attempt to reduce the likelihood of conflict. The Step-down plan is currently 'on hold', with a goal of moving forward before the 2017-18 feeding season.

AS: It appears to me that the peer review of the plan did not include landowners, that Fish and Wildlife is in charge.

ST: This is a very complicated situation, with many parts and players involved. WGFD is very concerned about the plan.

FG: Please keep us in the loop as things progress so that we are aware of what's going on.

#### **IX. WGFD Feedground surveillance**

Brandon Scurlock (BS): (See attached power point for further details) The 2016 elk herd unit BMAP's are now online and available through the WGFD website. For 2016-17 feedground surveillance, WGFD will perform corral trapping on the NER (perform sero-surveillance, apply GPS collars), at Fall Creek and Muddy Creek (sero-surveillance and send up to 20 seropositive pregnant elk to National Wildlife Research Center), and at Grey's River, Forest Park, and Fish Creek feedgrounds (sero-surveillance). Chemical immobilization and application of GPS-VIT pairs will occur at Bench, Green River Lakes, Soda Lake, Gros Ventre, and Dell Creek feedgrounds. One person from the Pinedale office has been relocated to work in Cody so that he can focus on the Bighorn elk situation.

#### **X. Adult Booster vaccination with RB51**

Bruce Hoar (BH): (See attached power point for details) RB51 vaccine has been licensed for use in cattle since 1996, but there is still very little scientific data available on the efficacy of adult-booster vaccination. The one study that we are aware of has yet to be published, but shows promising results in reducing abortion as well as colonization of both the dam and offspring. More research is needed to address a number of questions.

#### **XI. NAS Review Update / Select Agent Listing update**

BH: The NAS report is due to be sent out for anonymous review within the next few weeks, and hopefully, published soon after (next spring?). The Department of Homeland Security seems to be reluctant to remove *B. abortus* from the list of select agents, but a final decision on that has yet to be announced.

#### **XII. Legislative Update**

Fred Emerich (FE): The next legislative session starts in Cheyenne on January 10, 2016. We need to get used to the fact that we won't have the services we've had in the past.

FG: Any change to Brucellosis funding anticipated?

FE: No, I don't think so. While everything is on the table, we feel that this is sacred. Agriculture is #3 in terms of income in the state.

AS: Budget is the big issue ahead. I am open to listen to any concerns, especially related to brucellosis. We are an energy producing state, WY needs to figure out how to survive in a new economic reality.

FG: Given the status of brucellosis and the state budget, should we move to one meeting per year? Perhaps in January or so?

CP: What is the cost of this meeting?

Doug Miyamoto: It depends – a few thousand, maybe up to \$7,000, and almost double that if the state plane is used.

CP: Once a year works for me.

ST: I also support one meeting per year.

RH: Once a year, and if an outbreak occurs, then reconsider.

JL: Agreed.

FG: Might lose some visibility, but if Barton and Dr. Logan can do good outreach, that may replace that visibility. So, we will plan on the regular meeting in Spring of 2017, then go to once per year – either late Dec 2017 or Jan 2018.

Motion to adjourn.

APPENDIX I.

Guest attendees

<b>NAME</b>	<b>AFFILIATION</b>
Steve True	WY Livestock Board
Brant Schumaker	UWYO
Noah Hull	UWYO
Mae Smith	UWYO Extension
Leon Mickelson	
Ted Mickelson	
Eric Maichak	WGFD
Tina Bloxham	
Carrie Dobey	USDA/APHIS
Jennifer Fernandez	Senator Enzi
Gary Hart	USDA/APHIS
Oaklee Andersen	Senator Barrasso
Brandon Scurlock	WGFD
Eric Liska	MT Dept of Livestock
Travis Elinger	MT Dept of Livestock