

Wyoming State Veterinarian Report to the Wyoming Brucellosis Coordination Team

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The bison herd in Park County that had been under quarantine since November 2010 was released from quarantine in October 2015 following a final (3rd) consecutive, negative, whole-herd test.

Two brucellosis-affected cattle herds were found by routine required testing in Wyoming in late October 2015. Both herds are located in the Wyoming Brucellosis Designated Surveillance Area (DSA). One is in Park County (60 miles east of YNP), and the other in Sublette County (60 miles south of YNP). Both herds were exposed to brucellosis-infected elk and genomic testing has verified elk as the source of both infections. These two affected herds are not epidemiologically linked.

The Park County herd underwent three, consecutive, negative, whole-herd tests, with the last being post-calving in July 2016. The quarantine on that herd has been released. This herd had only one Brucellosis reactor and it was a relatively simple case to resolve. There was only one fence-line contact herd associated with this affected herd. A herd test was conducted on the contact herd in November 2015 and no suspects or reactors were found so the quarantine was released.

The Sublette County herd originally had 11 reactor animals and, following their removal, the herd had one negative, whole-herd test in January 2016. Unfortunately, two additional reactor cows were found in the second whole-herd test in March, so the requirement for three, consecutive, negative tests started anew. The herd was tested again on May 21 and 22 and two additional reactors were found. The herd will remain under quarantine until it has had three consecutive, negative, whole-herd tests with at least one being post-calving.

There were seven contact/commingled herds associated with this affected herd. Some ran steers and spayed heifers and were not required to be quarantined or tested. The others were placed under quarantine until a herd test was conducted. All herd tests were negative and the contact herds were released from quarantine. All contact herds will undergo an assurance test this fall following summer grazing.

We worked with the producer, contact herd owners, USDA APHIS, and the USFS within state and federal rules to facilitate grazing management this summer, allowing only test-negative cows that had already calved to be turned out. A herd test was conducted in late October with test results pending. The quarantine remains in effect and the producer has been very cooperative.

We have been fortunate to have the valued assistance of the Wyoming State Veterinary Laboratory (WSVL) in the diagnostic work on both brucellosis cases. The lab has purchased most of the reactor animals and performed complete necropsies and tissue cultures as part of a research project. The state of Wyoming purchased the last reactors through a state indemnity fund and those animals were also necropsied at WSVL. Tissue cultures were conducted at the WSVL and NVSL and *Brucella abortus* was isolated from several tissues. We purchased for removal 5 animals at an expense of \$8,950. The indemnity account established by the Wyoming legislature to purchase removed Brucellosis reactors or for diagnostic purchase currently has a balance of \$534,197.01.

The regulatory serology unit of the WSVL continues to provide excellent service for our Wyoming producers and veterinarians in testing brucellosis samples and getting results quickly and accurately. We have also been fortunate to have the good cooperation of USDA APHIS in dealing with the epidemiology and regulation of these cases.

Staff veterinarians have been working with producers, markets, and veterinarians in and out of the DSA to educate them about Brucellosis issues and to encourage risk assessment and herd plan development. We have held meetings in Big Horn, Sheridan, and Johnson counties with producers, veterinarians, and WGFD personnel to discuss the disease risks and surveillance testing needs.

40 veterinarians conducted testing for Brucellosis on cattle from the Designated Surveillance Area (DSA) and the Brucellosis Area of Concern during WY Fiscal Year 2016. 43,875 cattle/bison were tested on Wyoming ranches and at livestock markets and 2,094 cattle were sampled at Wyoming slaughter plants to comply with WLSB Chapter 2 Brucellosis rules. An additional 6,500 head have been tested in July, August, and September.

The WLSB Brucellosis Chapter 2 rule was recently revised to clarify Brucellosis testing requirements. The board voted on September 15 to require testing on all sexually intact females 12 months of age and over that leave or are sold from within the DSA. New language in the chapter 2 Brucellosis rule, which will go into effect on January 1, 2017 if signed by the Governor, is:

“Test-Eligible” means all sexually intact female Bovinae eighteen (18)twelve (12) months of age and over. (as evidenced by the full eruption of at least one of the first pair of permanent incisor teeth). All Bovinae that are visibly pregnant or Post Parturient are test eligible regardless of age.”

“Section 9. Testing of Specific Bovinae.

(a) All Test Eligible Bovinae within the Designated Surveillance Area are required to be tested negative for Brucellosis within the time provided in (a) (i) below prior to a change of ownership, prior to interstate movement, and prior to leaving the Designated Surveillance Area

(i) Breeding ClassTest Eligible Bovinae within the Designated Surveillance Area must have a negative Brucellosis test within 30 days prior to moving or changing ownership, except that any negative test performed between August 1 and January 31 of the following calendar year will be valid from the time of test until the end of that time period (January 31).

(A) Heifers born during the previous calendar year and shipped after August 1 of their yearling year shall be tested for Brucellosis as established in (a)(i) above.”

Due to findings of brucellosis in free-ranging elk in the Bighorn Mountains of Wyoming during the fall of 2012 (since 2012 there have been a total of 10 Brucellosis seropositive elk found on hunter killed surveillance) , the Wyoming Livestock Board (WLSB) initiated voluntary brucellosis testing of test-eligible, adult cattle originating from Big Horn and Sheridan counties. Approximately 11,000 head of cattle have been tested since initiation of the surveillance program in both Sheridan and Big Horn counties with no suspect or reactor cattle found. We are encouraging producers and veterinarians to have test-eligible cattle from Big Horn and Sheridan

counties tested prior to a change of ownership either at the ranch or at livestock markets and have commitments from several producers and veterinarians to test this fall.

The WLSB discussed the situation of seropositive elk outside the DSA but declined to impose mandatory test requirements in Big Horn County until further information on elk surveillance testing and the WGFD's elk radio collar study are available. The board is depending on voluntary testing of cattle sold from Big Horn and Sheridan counties to provide adequate surveillance for Brucellosis.

At the recent United States Animal Health Association meeting a resolution was passed (originated in the Brucellosis Committee) to address concerns with the finding of seropositive wildlife outside of a state's DSA. The same resolution was also passed at the Western States Livestock Health Association meeting. I have included the resolution below:

RESOLUTION:

The Western States Livestock Health Association urges the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), to conduct reviews of Greater Yellowstone Area state brucellosis management plans and their implementation at least every three years. In addition, Western States Livestock Health Association also encourages GYA states and APHIS to continue to conduct wildlife surveillance outside of Designated Surveillance Areas, and to adjust DSA boundaries accordingly to include geographic areas where there is a potential risk of transmission of brucellosis from wildlife to cattle or domestic bison.