

Wyoming State Veterinarian Report to the Wyoming Livestock Board
Submitted by: Dr. Jim Logan
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Disease updates

Brucellosis-

Current Status of Brucellosis in Wyoming-

We currently have one Brucellosis affected bison herd under quarantine in Sublette County Wyoming. The affected bison herd in Sublette county was confirmed on September 15, 2020 with one bull necropsied and culture positive at the WSVL and NVSL. The first herd test was completed on October 2, 2020 with one additional bull testing “non-negative” and results confirmed positive on FPA, BAPA, and CF tests at NVSL. This bull was removed from the herd and a necropsy was conducted with tissues cultured at WSVL. An Affected Herd Management Plan for this herd was developed and an epidemiologic investigation was completed.

Another bison herd in Park county that was found in December, 2019 and had only one seropositive 2 year old heifer that did not culture positive on samples collected at necropsy conducted at the Wyoming State Veterinary Laboratory (WSVL) has completed all requisite testing and was released from quarantine in December 2020. These herds are not epidemiologically linked, but both have been determined to be wild elk source of exposure/transmission.

The Wyoming Brucellosis Designated Surveillance Area (DSA) is defined in the Chapter 2 Brucellosis rules and the boundaries are reviewed annually by the state veterinarian and the Director of the WGFD with subsequent advice to the WLSB who sets the boundaries each year. The current boundaries were established in 2010 and have not been changed since that time. When the boundaries were set, a “buffer zone” on the perimeter of the DSA was included and we encourage producers to voluntarily develop a Brucellosis Mitigation Herd Plan. Our Chapter 2 rules require statewide calfhooed vaccination and official ID of all sexually intact female cattle/bison 12 months of age and older. The vaccination and identification requirements are enhanced within the DSA. Testing of all sexually intact female cattle/bison 12 months of age and over is required prior to change of ownership and/or movement out of the DSA.

The WLSB also has three additional sets of rules relating to Brucellosis. These are Chapter 6 Brucellosis Mitigation Activities and Compensation, Chapter 20 Indemnity rules, and Chapter 25 Brucellosis Quarantine Mitigation Expense Reimbursement. Wyoming enjoys an excellent interagency working relationship between the WLSB, WSVL, WGFD, WY Department of Health, and APHIS. This enables us to fluidly and transparently deal with all the issues surrounding Brucellosis in the GYA.

Three (3) Brucellosis sero-positive elk were found on the Wind River Indian Reservation in April of 2019. Dr. Logan, WLSB Director Steve True, and Drs. Beckett and Hennessey have been working with the Joint Tribal Council of the Northern Arapaho and Eastern Shoshone tribes and USFWS to deal with the potential for wildlife brucellosis on the reservation. Dr. Logan has met with numerous tribal and reservation producers over the years to encourage voluntary testing and surveillance. The COVID-19 issues have temporarily suspended work with the tribes on this issue due to the magnitude of COVID-19 infections on the reservation, but efforts are continuing with legislative committees, WLSB, and the tribes via virtual meetings.

Ongoing Brucellosis work: We are continuing to work with producers and veterinarians in and out of the DSA to educate them about brucellosis issues and to encourage risk assessment and herd plan development. We are also conducting veterinarian training in the DSA on Brucellosis risk assessment and risk mitigation plan development.

Animal Health staff continues to audit movement and test records on cattle moved or sold from the DSA. We have had good cooperation from the Brand Inspection Unit in this process and compliance with the Chapter 2 rules test requirement has been good. We take measures to improve compliance if any non-compliance is identified.

An APHIS Brucellosis review of our Wyoming program was scheduled for August 3-6, 2020. Due to COVID-19, USDA APHIS suspended their personnel travel, so we had an entrance interview by conference call and will reschedule the full review for some time in 2021 depending on federal and state COVID-19 restrictions. We had our last review in 2017 and we're required by the Code of Federal Regulations (9 CFR) to have a review every three years.

Trichomoniasis – To date in 2021, we have not found any new cases of Trichomoniasis in Wyoming. The last case of Trichomoniasis found in Wyoming was in late 2016. We are working with veterinarians who need to certify or re-certify to achieve certification virtually. Challenging circumstances breed innovation! A veterinarian certification program was held on November 30, 2020 via ZOOM by Dr. DeGroot with a dozen veterinarians participating and certifying or recertifying for Trich testing. Dr. DeGroot has also conducted additional certification programs by ZOOM meetings for smaller groups of veterinarians. If requested by enough veterinarians, WLSB veterinary staff will hold additional certification programs at other times and locations as time allows.

Vesicular Stomatitis virus (VSV) -This disease is caused by a virus that can be transmitted by insect vectors and by direct animal to animal contact. Clinical signs include vesicles/blisters and erosions in the mouth, on the lips, tongue, muzzle and cheeks, lesions in the ears, on the sheath and udder, and on the coronary band. The virus can affect horses, cattle, sheep, goats, and swine. This disease is clinically identical to Foot and Mouth Disease in cloven hooved species and therefore is a reportable and actionable disease. The most likely time of year for VSV to occur in Wyoming is during the insect vector season (June through October).

No cases of VSV were found in Wyoming in 2020 although we conducted a number of Foreign Animal Disease investigations which were all negative for the disease. Wyoming had the following VSV investigations during the 2020 calendar year:

Species	Number of investigations
Caprine	2
Llama	1
Yak	1
Equine	6
Total	10

Equine Piroplasmosis – We still have one race horse premise with one horse under quarantine in Uinta County for infection with Equine Piroplasmosis (since April of 2017). It is expected that the horse owner will eventually be relocating remaining horses to Mexico under agreement with USDA APHIS. APHIS field veterinarian, Dr. Avery Strait (UDSA APHIS VS), is coordinating this effort.

Big horn sheep/domestic sheep issues

Dr. Logan continues to work through the ASI taskforce, AVMA, USAHA, National Assembly, WSLHA, and the Wyoming Bighorn Sheep/Domestic Sheep Working Group on these issues. This is an issue that should be paid attention to by the beef cattle industry as well as the sheep industry since the land use issues related to the BHS/DS interface may affect both industry species.

Rabbit Hemorrhagic Disease Virus 2 (RHDV2)- This disease of domestic, feral, and wild rabbit species is caused by a highly contagious virus that is fatal to rabbits but does not affect other species. Currently it is considered a foreign animal disease (FAD) in the U.S. General signs for many cases include lethargy and sudden death. Seizures prior to death have been noted in some cases. Occasionally, no signs are seen and the animal is simply found dead. There is no licensed vaccine commercially available in this country to prevent the disease. USDA Center for Veterinary Biologics is allowing the use of vaccines from Europe with state veterinarian approval and is working with a US company in developing a vaccine to be licensed here. Our field veterinarian, Dr. Hallie Hasel, has been working with veterinarians to facilitate acquisition of vaccine through a Utah veterinary clinic that has acquired the vaccine from foreign sources.

RHDV2 has been found in Texas, New Mexico, California, Arizona, Nevada, Utah, Colorado, Wyoming, Florida, and Montana since the beginning of the outbreak in early 2020. Dr. Logan is working with Dr. Samantha Allen, WGFV Veterinarian in preparation for disease response in Wyoming. There are many domestic rabbit owners in the US and in Wyoming who have significant investments (both monetary and emotional) in their livestock. Numerous domestic and wild rabbits have been submitted for diagnostics at NVSL and WSVL. Only one case of the disease in domestic rabbits has been found which was in Laramie County, Wyoming to date. There have been 13 cases of wild rabbits found in Wyoming that had died of the disease, all from Laramie, Albany, Natrona, or Park County.

Harmful Cyanobacteria Blooms (HCB) (previously called Harmful Algae Blooms) - The Wyoming Department of Environmental Quality (DEQ), the Wyoming Department of Health (WDH), and the Wyoming Livestock Board (WLSB) advise the public to avoid and keep animals away from cyanobacterial blooms in Wyoming's lakes and reservoirs and to report suspected blooms to DEQ. In 2020, HCBs were found at numerous Wyoming bodies of water. Typically, colder weather will end the season of concern for HCBs. But in early March 2021, a new HCB was found at Keyhole Reservoir.

Here is a list of the waterbodies (N = 21) where Department of Health issued a HCB advisory in 2020 and to date in 2021

- Seminoe Reservoir
- Boysen Reservoir
- Ocean Lake
- Wheatland Reservoir #3
- Leazenby Lake
- Saratoga Lake
- Pathfinder Reservoir
- Woodruff Narrows Reservoir
- Lower North Crow Reservoir
- Big Sandy Reservoir
- Eden Reservoir
- Keyhole Reservoir
- Brooks Lake

- Flaming Gorge Reservoir
- Granite Springs Reservoir
- Weston Reservoir
- Lake Viva Naughton
- Buffalo Bill Reservoir
- Upper Jade Lake
- Pelham Lake
- Shoshone Lake

Advisories have now been lifted for all bodies of water where CABs were identified in 2020. A new advisory was posted in mid March for Keyhole Reservoir where an HCB was recently found under the ice by fishermen.

Cyanobacteria, also known as blue-green algae, can form harmful cyanobacterial blooms (HCBs; also referred to as harmful algal blooms or HABs) that produce toxins and other irritants which pose a risk to human, pet, and livestock health. HCBs typically occur during late summer to early fall in still or slow-moving water and may last days, weeks, or months. HCBs are generally blue or green in color and may appear as grass clippings, scums, floating mats, or spilled paint. Suspected HCBs can be reported to DEQ by calling 307-777-7501 or submitting a complaint online at WyoSpills.org.

Chronic Wasting Disease (CWD) – Dr. Logan participated in meetings of the WGFD CWD working group representing state agencies. The CWD working group developed a plan which was adopted by the Wyoming Game and Fish Commission. WGFD held ZOOM meetings in early December to discuss the issues of elk feedgrounds and potential impacts on CWD prevalence. WLSB veterinary staff participated in these meetings. There is new legislation currently being discussed in the Wyoming legislature regarding elk feedgrounds as they pertain to CWD.

US Secure Sheep and Wool Supply Plan - Four Wyoming individuals served on an American Sheep Industry (ASI) advisory committee to develop the US Secure Sheep and Wool Supply Plan. Amy Hendrickson, Peter John Camino, Brad Boner, and Jim Logan were appointed to the group that is working with Iowa State University with funding from ASI and USDA APHIS. The other US commodity groups (milk, pork, dairy, poultry, and beef) have already developed their industry plans. The second phase of this SSWSP is underway to conduct education and outreach activities within the sheep industry.

Other Reportable Diseases – Since the WLSB meeting on October 6, 2020, we have had reports of the following diseases:

- 6 Rabies – 5 skunks and 1 equine
- 13 RHDV2 in wild rabbits and 1 case in a domestic rabbit
- 18 Johne's – 12 Bovine and 4 Caprine
- 1 Parapox - Orf / sore mouth
- 2 EHV-1 abortion at one premises
- 4 Brucella Ovis
- 1 Listeriosis in sheep
- 1 Dermatophytosis