



What is brucellosis?

Brucellosis is an infectious disease caused by the bacteria *Brucella abortus*. The disease often causes abortion in cattle, elk, and bison. Brucellosis is also a potential human health threat. Elk and wild bison in northwest Wyoming are infected with brucellosis and pose a threat to cattle. These elk and bison are the last reservoir of brucellosis in the country. In 1934, the United States began a cooperative brucellosis eradication program to eliminate brucellosis in livestock. In 2003, cattle in Wyoming were infected with the disease from elk, and, after a second case in 2004, the state lost its valuable Class Free status, compromising the marketability of Wyoming's cattle and initiating costly surveillance programs. Wyoming regained its status in 2006. The Greater Yellowstone Area elk and bison continue to be a reservoir for the disease. This disease is probably one of the most controversial issues facing wildlife managers today.

It is vital for us to keep Wyoming's cattle brucellosis free, prevent the transmission of brucellosis from elk and bison to cattle, and manage against the presence of brucellosis in these species.

- The elk and bison herds in the Greater Yellowstone Area are the last place brucellosis is known to exist in the United States.
- Wyoming cattle sales in 2002 were \$643 million while all agricultural product sales totaled \$864 million and total net agriculture income was \$115 million. Since brucellosis was found in cattle in 2003, brucellosis-related producer costs have been reported to exceed \$5 million.
- Maintaining brucellosis free status of our cattle herd is important to the ability of the state's livestock industry to trade and compete on a level playing field with neighboring state competitors. Other states discriminate against cattle originating from states which aren't Class Free states.
- It is estimated in the years 2004 - 2007 producers and auctions across the state had to draw and submit more than 525,000 additional blood samples because of the brucellosis outbreak, and Game and Fish has tested over 2,000 elk.
- In the ongoing process of recovering our Class Free status, the state of Wyoming has appropriated more than \$14 million earmarked for brucellosis.
- The Wyoming Game and Fish Commission has spent more than \$4.3 million from its resources to address this brucellosis problem between 2000 and 2008.

Brucellosis is a very complex issue involving many interests. There are no easy solutions, and success will require a multi-faceted approach.

- Surveillance for brucellosis in cattle is a regulatory function managed by USDA-APHIS and the Wyoming Livestock Board.
- Brucellosis in elk and wild bison is a problem, which involves more than those regulatory agencies. Wildlife and land management agencies, scientists, outdoor enthusiasts, hunters, outfitters, environmental groups, livestock owners, academia, and many more interest groups all have a stake in the brucellosis problem in elk and bison.
- Many of the interests run counter to one another, adding a complexity to the issue that defies a straightforward solution. Doing nothing is not a solution.
- Elk and wild bison simply cannot be managed in the same fashion cattle can be managed. Those management techniques successful in essentially eradicating the disease in cattle cannot be applied to these species.
- If the solution were easy, it would have been completed long ago. There is no silver bullet.

There are many groups and agencies working together to achieve common brucellosis-related goals in Wyoming.

- Many groups and individuals have vested interest in brucellosis management in elk, wild bison, and cattle.
- All groups who have been identified as stakeholders have been tasked with developing solutions.
- The groups are very diverse - yet united in combating this disease's presence in Wyoming's cattle, elk, and wild bison.
- The Governor's Brucellosis Coordination Team membership includes 22 representatives from state and federal agencies, livestock interests, sportsman's groups, outfitters, and environmental organizations. Additionally, many technical advisors have assisted. The meetings have been open to the public.

Based on the actions recommended by the Governor-appointed Wyoming Brucellosis Coordination Team, more is being done to solve the brucellosis problem in Wyoming than ever before.

- This is not Wyoming's first experience in responding to a loss in Class Free status. The last time was in 1985. While the immediate response to that incident was successful and Class Free status regained, the resolve to maintain long-lasting solutions faded quickly. Since gaining the state's Class Free status, the pressure to maintain that status has increased both economically and politically.
- Eighteen years later, the disease reappeared in livestock. Our resolve is much greater. The commitments are stronger. The resources committed are greater.
- Regulatory agencies are working with Wyoming ranchers to develop cattle herd management plans. Ranchers continue vaccination programs and actively implement best management plans to reduce the potential of infection.
- The Wyoming Game and Fish Department has developed elk and wild bison herd management plans, evaluating all opportunities to reduce transmission from these species to cattle and among wildlife. The department has also been instrumental in implementing research programs and pilot studies to investigate disease management options.
- The Wyoming Legislature, recognizing the importance of eradicating the disease in livestock, elk, and wild bison, has been very proactive in appropriating funds and approving positions specifically detailed to manage the disease.
- The University of Wyoming has been a catalyst in bringing together the best research minds in the country to increase understanding of the disease and has created positions whose purpose is to work on the disease.
- Many state and federal agencies have been actively managing programs to combat this disease with activities ranging from management plans to educational programs.

- A cooperative approach that addresses the disease socially, biologically, politically, and economically will be required.

Why brucellosis is so tough to contain

- The bacteria can remain contagious for several months in ideal conditions.
- It is passed on through mucous membranes of the nose, mouth, or eyes via contact with diseased fetuses, placentas, or from bedding and feed contaminated with the organisms.
- The incubation period can range from as short as 10 days to as long as 285 days.
- Vaccines are only modestly effective.



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