
STATE OF MONTANA

STEVE BULLOCK, GOVERNOR

DEPARTMENT OF LIVESTOCK
PO BOX 202001
HELENA, MONTANA 59620-2001



DEPARTMENT OF LIVESTOCK (406) 444-7323
ANIMAL HEALTH DIVISION (406) 444-2043
BRANDS ENFORCEMENT DIVISION (406) 444-2045
FAX (406) 444-1929

DATE: January 6, 2014
TO: Casey Barrs
FROM: Marty Zaluski, DVM
State Veterinarian
SUBJECT: Efficacy of brucellosis vaccination in bison and import requirements for bison

VACCINATION OF BISON FOR BRUCELLOSIS: Vaccination is considered to be a critical tool that allowed the country to eradicate the disease from livestock. Brucellosis vaccine was made available in the 1940s to control brucellosis in livestock. For a time, bison were being vaccinated aggressively within Yellowstone National Park (YNP) by the Park Service. Bison respond to vaccine as well or better than cattle; vaccine reduces the chance that an infected bison will abort from 85% to 33% (a 50% drop).

The IBMP (Interagency Bison Management Plan) management agencies should strive for reducing the prevalence of brucellosis in Yellowstone National Park bison to that of the surrounding elk populations (10-15%). This is a realistic goal that can be achieved through a sustained and collaborative effort by bison management agencies; specifically YNP and Montana Department of Livestock (DOL).

Reducing brucellosis prevalence in bison translates into success on the ground: First, it would mitigate landowner concerns that bison are a greater brucellosis threat than elk which they already allow on their property. Second, this effort would be highly meaningful in discussions to reduce or eliminate elk feeding in Wyoming. Currently there is a stalemate as neither YNP, nor the state of Wyoming feel that interventions can succeed because the other party maintains a reservoir. Reducing prevalence in bison is also highly significant to animal health and ranching interests within the state and nationally.

Effectiveness of the program can be monitored in the short term by monitoring pregnancy rates of vaccinated bison when they are opportunistically recaptured at the Stephens Creek capture facility or mobile trap set up by DOL in the western management area. Long term success is measured by a decrease in herd prevalence of brucellosis.

Vaccination for brucellosis is justifiably credited as being a critical component of the brucellosis eradication program in the United States. It is highly effective, and continues to be used in the United States and internationally. However, vaccination must be paired with other management strategies to achieve the desired impact on disease levels. In the future, fertility control has the potential to have a greater return on investment in reducing the level of disease in the YNP bison population. Fertility control receives broad support from animal welfare organizations, including the Animal Welfare Institute, but has failed to receive support from constituencies involved in YNP bison management.

REQUIREMENTS FOR BISON IMPORTED INTO MONTANA: Under Montana Code Annotated 81-2-102, DOL administers regulations for animals imported into the state. Import requirements are listed in Administrative Rules of Montana in 32.3, and are listed on the DOL web site at <http://liv.mt.gov/ah/import/cattle.mcp>.

Bison entering Montana to ownership have been subject to domestic bison import requirements listed in 32.3.224 DOMESTIC BISON. This administrative rule currently being revised; a clerical error omitted moving TB requirements from DOL Official Order 10-01-I to this rule in 2013.