

The Future of the National Bovine Brucellosis Program

Brucellosis is a contagious disease caused by bacteria of the genus *Brucella*. It has significant animal health, public health, and international trade impacts. Human infection, known as undulant fever, causes recurrent fatigue, headaches, fever, chills, joint pain, backache, loss of weight and appetite. People can be infected directly from infected animals and by eating raw dairy products.



The cooperative Federal-State-industry Brucellosis Eradication Program began in 1934 when about 10% of all cattle were infected. Significant progress has been made, but challenges impede eradication. In February 2008, every State achieved disease-free status in livestock, but this accomplishment was short-lived when Montana lost its free status in September 2008. Infected wildlife in the Greater Yellowstone Area (GYA) were implicated as the source of infection in Montana and in Wyoming and Idaho cases. The last known reservoir of disease in the US is in the elk and bison wildlife populations in the GYA.

Current brucellosis laws define the criteria for attaining and maintaining the Federal brucellosis levels for States or zones as Free, A, B, and C, and define the testing requirements to move from a particular status zone. Eradication depends on removing the last brucellosis-infected livestock animal and preventing the spread of brucellosis from infected wildlife to livestock. Following meetings with industry personnel, veterinarians, regulators, diagnosticians and wildlife experts, the USDA/APHIS/VS has developed a concept paper

presenting their current thinking about program changes.

The concept paper provides an action plan to:

1. **Demonstrate the Disease-Free Status of the United States**
 - a. *National Surveillance Strategy.* The proposal reduces slaughter surveillance by about 50%, eliminates the brucellosis ring test, and eliminates Federal funding for first-point testing in low-risk States (States that do not border the GYA and have maintained Class-Free status for 5 or more years).
 - b. *Consolidate Surveillance Laboratories and Use Standardized Protocols.* The proposed consolidation and standardization will improve efficiency and reduce costs. Two Federal laboratories in Kansas and Kentucky, and 22 State-Federal laboratories are proposed.
2. **Enhance efforts to mitigate disease transmission from wildlife**



- a. *Determine the location and range of brucellosis-affected wildlife.*
- b. *Reduce the prevalence of disease in wildlife.*
- c. *Mitigate the risk of transmitting disease to livestock.*

3. Enhance disease response and control measures

- a. *Epidemiological Investigations.* Modify and add actions, including counting multiple epidemiologically linked affected herds as one case.
- b. *Apply Whole-Herd Depopulation Judiciously and Develop Alternative Strategies.* Use standard criteria to determine if whole herd depopulation is justified, and apply herd management plans to prevent transmission and eliminated the disease.
- c. *Apply Animal Identification (ID) Standards.* Require official animal ID and movement certificates to ensure that high-risk cattle move to slaughter or terminal feeding and allow low-risk cattle to move out of the zone.

4. Modernize the Regulatory Framework

Structure a regulatory framework that allows the program rules to change with new scientific knowledge and respond to changes in the livestock industry.

5. Implement Risk-Based Disease Management Areas

- a. Develop criteria to establish, modify and remove the boundaries of management areas as disease risks change. Areas would include individual herds, clusters of affected herds or areas with disease in wildlife.
- b. Impose testing standards and movement restrictions on disease management areas.
- c. Define the GYA as a “designated surveillance area” for brucellosis, containing animals that require disease surveillance, control, and biosecurity to ensure the rest of the US can be classified as disease-free.
- d. Develop herd management plans based on individual herd risk assessments.

New Direction for the Bovine Brucellosis Program:
http://www.aphis.usda.gov/newsroom/content/2009/10/printable/brucellosis_concept_paper.pdf

Proposed Bovine Tuberculosis and Brucellosis Draft Regulatory Framework:

http://www.aphis.usda.gov/animal_health/tb_bru_c/downloads/tb_bruc_framework.pdf



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