
RESOLUTION NUMBER: 31 APPROVED

SOURCE: COMMITTEE ON CATTLE AND BISON

**SUBJECT MATTER: REQUEST FOR *BRUCELLA* SPECIES FUNDED
RESEARCH**

BACKGROUND INFORMATION:

The national Brucellosis Eradication Program was established in 1934, and effectively eliminated *Brucella abortus* from cattle and domestic bison populations resulting in all 50 United States (US) states, Puerto Rico and the US Virgin Islands being considered Brucellosis Class Free. *B. abortus* infected wild elk and wild bison in the Greater Yellowstone Area (GYA) pose a continued threat to cattle and domestic bison in areas of Idaho, Montana, and Wyoming, while *B. suis*-infected feral swine found in most of the United States pose both a threat to animal and human health and a regulatory challenge for cattle and other species.

A key tool used to achieve brucellosis eradication was widespread administration of the RB51 vaccine in cattle and domestic bison populations, as well as serology and culture, to identify infected herds. A significant limitation of these tools is that serology, often used for initial screening, does not differentiate among the smooth *Brucella* spp. *B. abortus*, *B. suis*, and *B. melitensis*. Additionally, in the United States the only commercially available vaccine for *Brucella* is the RB51 vaccine for *B. abortus*, used in cattle and domestic bison. There is no vaccine available for *B. suis*.

As infected wildlife populations in the GYA and greater United States have flourished, eradication efforts have shifted to control strategies and costs associated with controlling brucellosis have increased. Presently, control programs are species-specific, with a *B. abortus* bovine program and a *B. suis* swine program in place that are administered through cooperation between state and federal animal health officials. These programs fail to consider the potential epidemiologic role and public health risk associated with detection of *Brucella* spp. in nontraditional species. Detection of *B. suis* in non-suidae species, such as cattle, has interrupted continuity of business and created a financial burden on producers as animal health officials take regulatory steps to investigate. Based on responses to a recent survey from the National Assembly of State Animal Health Officials (NASAHO) and data from the National Veterinary Services Laboratory (NVSL), eight states have reported detection of *B. suis* in cattle since 2001. States, including those that reported detections of *B. suis* in cattle, indicated that they did or would take some form of regulatory action including investigation, quarantine, testing of herds, and culling of affected animals, at significant cost to state and federal resources, and the producer.

Despite the possibility for domestic livestock to interface with infected wildlife populations, slaughter surveillance for brucellosis is decreasing and most states have reduced or eliminated first-point testing at livestock markets. Therefore, while there is an increased opportunity for transmission of *Brucella* into program animals and spillover species, the number of samples available for speciation is decreasing, making existing gaps in knowledge of interspecies transfer, and vaccine development increasingly difficult to address. Additionally, the select agent status of *Brucella* spp. has limited the capacity of research institutions to study *Brucella* spp. under field and laboratory conditions, and it will need to be removed from the select agent list to facilitate necessary research.

RESOLUTION:

The United States Animal Health Association requests that the United States Department of Agriculture allocates additional resources to the National Institute of Food and Agriculture, Animal Plant Health Inspection Service, Veterinary Services, and Agricultural Research Service for *Brucella* species research, regardless of select agent status. Research projects should include, but not be limited to, enhancing understanding of the epidemiology of *B. abortus* and *B. suis* in spillover species, and the development of effective vaccines and more sensitive and specific diagnostic tests to differentiate *Brucella* species.