

United States Animal Health Association - 2004

RESOLUTION NUMBER: 31 **APPROVED**

SOURCE: COMMITTEE ON BRUCELLOSIS

SUBJECT MATTER: DEVELOPMENT OF PROTOCOLS TO ALLOW CONDUCT OF
CRITICAL RESEARCH RELATED TO BRUCELLA SPECIES

DATE: OCTOBER 27, 2004

BACKGROUND INFORMATION:

The state and federal governments and the livestock industry have spent billions of dollars since 1935 to eradicate *Brucella abortus* infection in cattle. These efforts are leading to a national herd that is nearly free of the disease. The only significant reservoir of field strains of *Brucella abortus* is in free ranging elk and bison within the Greater Yellowstone Area, an area that includes portions of the states of Wyoming, Montana, and Idaho and consists largely of federally managed lands. Significant research is essential to manage and eventually eliminate *Brucella abortus* infection in the Greater Yellowstone Area.

Brucella abortus has been listed by the United States government as a select agent because of its potential to be used as a weapon of mass destruction. The listing of *Brucella abortus* as a select agent has halted essential research on the disease and agent.

RESOLUTION:

The United States Animal Health Association (USAHA) requests that the United States Departments of Agriculture (USDA), Agricultural Research Service (ARS) and Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) and the United States Department of Health and Human Services (USDHHS), Center for Disease Control and Prevention (CDC) impanel a working group to develop a protocol that addresses biosafety and security concerns related to outdoor research with the Brucella species affecting livestock and wildlife as quickly as possible. The protocol should address all facets to be considered in a decision to permit outdoor research to be conducted by qualified researchers.

RESPONSE:

AGRICULTURAL RESEARCH SERVICE (ARS)

ARS supports efforts by APHIS-VS and the CDC to ensure the safety of all experiments with live cultures of Brucellosis.

ARS has extensive research efforts to address Brucella Abortus in free ranging elk and bison. ARS scientists have evaluated the RB51 Brucella vaccine in buffalo and found that it does provide protection against Brucella Abortus but not as well as in cattle. ARS is also evaluating different methods of delivery of the brucellosis vaccine and the biobullet appears to work well. A new type of biobullet (hydrogel bullet) is being evaluated and is expected to be superior to the current biobullet. ARS is also evaluating the RB51 and Strain 19 vaccine in elk and found they provided very little protection because only a humoral response was observed and not a cell mediated immunity response. ARS is also evaluating additional methods of vaccine delivery and new vaccine adjuvants in buffalo and elk.

CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)

Because this resolution also regards animal health research activities, we consulted with USDA to formulate the response to this resolution. CDC and the USDA Animal Plant Health Inspection Service (APHIS), Veterinary Services, recognize and are supportive of the need to develop this protocol. Protocol development will require the input of the CDC and APHIS Select Agent Programs, as well as USDA's Brucellosis control program. The protocol must be developed in such a manner that concerns from the state involved in the research or Brucellosis program in that state are adequately addressed. The final

protocol will be a consensus document between CDC and APHSI Veterinary Services; however, due to program issues, USDA Veterinary Services will need to take the lead. CDC will be please to provide subject matter expertise for issues related to Brucellosis laboratory identification, biosafety, and Select Agents that have the potential to pose a severe threat to public health and safety.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE, VETERINARY SERVICES (APHIS-VS)

The Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services and the Department of Health and Human Services, Centers for Disease Control and Infection, have initiated efforts to develop a protocol that addresses biosafety and security concerns associated with outdoor research in large animals inoculated with *Brucella abortus*. The protocol will focus on insuring compliance with Select Agent regulations and will be consistent with Brucellosis program requirements. We will work with all relevant stakeholder groups, such as the United States Animal Health Association (USAHA), to ensure that we incorporate all public comments as fully as possible.