

REPORT OF THE USAHA COMMITTEE ON INFECTIOUS DISEASES OF CATTLE, BISON AND CAMELIDS

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The Committee met on October 16, 2016 at the Sheraton Greensboro Hotel in Greensboro, North Carolina from 12:30-5:30 p.m. There were 20 members and 53 guests present. A meeting overview, including the mission statement of the Committee, housekeeping and resolution instructions were covered at the beginning of the session. Members and guests present introduced themselves.

Presentations and Reports

BVD Subcommittee Report

Julia Ridpath, NADC-ARS-USDA

This presentation included an update on Hobi-like virus and its prevalence as well as a brief review of recent peer reviewed publications. Studies suggest use of present BVDV vaccines may not result in cross protection against Hobi-like virus for cattle. An update focused on a CVB memo regarding immune suppression concerns related to BVDV vaccines was presented.

Fetal bovine serum biosecurity continues to be an issue. Further activity to address these concerns was discussed.

Recap of NIAA BVD Forum

Robert Stout, Kentucky Department of Agriculture

Bovine Viral Diarrhea (BVD) affects all segments of the beef and dairy industries and presents a variety of challenges to producers. NIAA dedicated an entire day at its 2016 annual meeting to address various aspects of BVD.

A panel of seven individuals presented on subjects ranging from science to economics to regulation. Highlights from the forum were presented to the committee.

Tritrichomonas Subcommittee Report

Carl Heckendorf, Colorado Department of Agriculture

Bud Dinges, Texas A&M University

This report included a review of previously held discussions at the Subcommittee meeting and included information about the subsequent presentations in the Committee meeting. Discussions about a possible interlaboratory comparison focused on sample pooling test results were presented. Plans are currently not in place to carry out this proposal.

2016 *T. foetus* Interlaboratory Comparison

Tim Hanosh, New Mexico State University

Suzanna Leckman, Rocky Mountain Regional Laboratory

With the absence of Federal oversight or a National Trichomonas Standardized Proficiency, there is a continued interest from the Western States Livestock Health Association (WSLHA) to assess the consistency between laboratories in their ability to detect *T. foetus* in cattle. An interlaboratory comparison was first conducted in 2014 between 18 laboratories from 16 states. In 2016, a second interlaboratory comparison was conducted between 21 laboratories. Laboratories tested In-Pouch panels consisting of 20 samples created by Biomed Diagnostics. After testing, laboratories were asked to voluntarily provide information such as temperature upon arrival, incubation time before processing, extraction method and polymerase chain reaction (PCR) method. Sixteen of the 21 laboratories provided this information. Pouches were inoculated with smegma to simulate a field sample. Ten of the 20 pouches were inoculated with concentrations of 10, 50, 100, 200 and 1000 cells in duplicate pouches. Panels were shipped overnight to receiving laboratories. Of the 21 laboratories that received pouches, seven laboratories identified all positive pouches as PCR positive; 13 laboratories identified all but one of the positive samples as PCR positive and 16 laboratories identified 8 out of 10 positive pouches as PCR positive. This interlaboratory comparison demonstrates a positive step towards open dialog and collaboration among Trichomoniasis's laboratories and state animal health officials.

Alternate Diagnostic Sampling Technique for Tritrichomonas Foetus in Cattle

Grant Dewell, Iowa State University

The presentation included a review of general sampling techniques including scraping, brushing, washing and swabbing. Presentation discussed challenges associated with diagnostic sample collection for *Tritrichomonas Foetus*. A new sample collection technique was presented along with changes required to accommodate this new technique with presentation of previously published data validating use of 16 ply gauze sponge applied to the penile surface and placement into transport media pouches. Also discussed was laboratory handling of the resulting sample.

Results from the NAHMS Dairy 2014 Study

Jason Lombard, NAHMS

The presentation highlighted important issues in the U.S. dairy industry and covered multiple topics addressed during USDA's National Animal Health Monitoring System (NAHMS) Dairy 2014 study. The study was conducted in the Nation's top 17 dairy States and included information from over 1,200 dairy operations. Topics included 1) Use of veterinarians, 2) Antimicrobial use, 3) Cow evaluation component that included lameness scoring, hock scoring, and body condition scoring, 4) Milk/milk filter and fecal testing for foodborne pathogens, including *Salmonella*, *Listeria*, and *Campylobacter*, and 5) An 18-month longitudinal study focused on preweaned heifer calves.

Update on Plans for NAHMS 2017 Beef-Cow/Calf

Jason Lombard, NAHMS

This presentation included a history of beef cattle cow/calf and feedlot studies, a study process review, results and resulting priorities of needs assessment surveys, objectives for the 2017 study, as well as timelines for the NAHMS 2017 Beef-cow/calf study.

NAHMS Bison 2014 Study

Kathe Bjork, USDA-APHIS-VS STAS, CEAH

Margaret Parker, Kelly A. Patyk, Steven Sweeney, Center for Epidemiology and Animal Health, USDA-APHIS

Summary:

In 2014, the U.S. Department of Agriculture National Animal Health Monitoring System (NAHMS), with assistance from the National Agricultural Statistics Service (NASS), conducted the first national study of health and management practices used on U.S. ranched-bison operations. The study was conducted to acquire baseline information in response to industry concerns about *Mycoplasma bovis* in ranched-bison herds. The study questionnaire was developed with stakeholder participation and consisted of seven sections focusing on inventory, additions, removals, and death loss; operation management; biosecurity; reproduction; diseases, parasites, and health management; disease testing practices; and outreach.

The questionnaire was mailed to 2,886 operations across all 50 states; the response rate for this mail-only questionnaire was 29.6%. Many operations had multiple reasons for raising bison. Nearly 70

percent (69.3 percent) of all operations were involved in bison cow-calf production. Approximately one-third raised bison for seedstock production (37.2 percent) or kept bison as a hobby or pasture pet (34.4 percent). Other reasons for raising bison included feedlot (15.8 percent of operations), agritourism/ecotourism (15.7 percent), and conservation (14.4 percent). Health problems present in bison on operations included internal parasites (19.0 percent of operations), diarrhea (13.3 percent), problems with being off feed/weight loss (9.2 percent), eye lesions (8.2 percent), and pneumonia/respiratory problems (6.3 percent). Primary causes of death included parasitism (5.3 percent of operations), other respiratory illness/pneumonia (4.3 percent), digestive illness (2.0 percent), malignant catarrhal fever (0.9 percent), and *Mycoplasma bovis* (0.7 percent). Additional results on health management and biosecurity practices will be presented. The study was conducted by NAHMS under its designation as a statistical unit under the Confidential Information Protection and Statistical Efficiency Act.

Committee Business

A motion was made and passed unanimously to approve the bovine viral diarrhea virus (BVDV) and Tritrichomonas Subcommittee reports.

Resolution proposal: Laboratory Approval for Regulatory Diseases

A motion, as amended was passed unanimously to support the proposed resolution as amended. Changes are reflected in the final resolution.

The meeting was adjourned.