Johne's Disease—Beef Cattle Update

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NCBA National Cattlemen's Beef Association

NCBA's Johne's Disease Policies

CH 5.1 (2013) Johne's Disease Support after Termination of USDA-APHIS Johne's Disease Program

- WHEREAS, USDA-APHIS, VS terminated their Johne's Disease program on October 1, 2012, and
- WHEREAS, Johne's disease continues to result in clinical disease in cattle, and subsequent economic losses for the cattle industry, and
- WHEREAS, Johne's disease may now be best addressed as a herd security issue at the producer level,
- THEREFORE BE IT RESOLVED, NCBA encourages herd security measures to control Johne's disease and to continue efforts to certify laboratories to conduct serology and fecal culture analysis test for Johne's disease in cattle.

CH Directive 1 (2016) Johne's Disease Research

BE IT DIRECTED, NCBA staff work to encourage research into both pre-clinical diagnostic testing for Johne's disease as well as more specific and sensitive clinical diagnostic testing procedures. Additionally, it should be communicated to the United States Department of Agriculture's Agricultural Research Service (USDA-ARS) that Johne's disease needs to remain on the animal disease research list for the 2017-2022 period.

Directive from the Nebraska Cattlemen's Association

NCBA Supports Funding for Johne's Disease Research at USDA-ARS

- **ARS National Research Programs**
  Animal Production and Protection
  NP 103-Animal Health
- Mission: To deliver scientific information and tools to detect, control, and where feasible, eradicate animal diseases of high national priority.
- 38 core research project areas
- 9 Locations
- 102 scientists

USDA-ARS Action Plan NP 103- Animal Health 2017-2022

Component 5-Priority Production Diseases-Johne's Disease

Research Needs:

- Complete sequencing of the M. paratuberculosis genome to provide new research tools to identify M. paratuberculosis-specific genes and proteins that may be useful as diagnostic tools or vaccine candidates.
- Studies on host immune responses are needed during the different stages of disease and the switch in immunity that results in progression from subclinical to clinical disease.
- Identification of unique microbial genomic sequences are needed to implement a highly effective vaccine platform that prevents subclinical disease, shedding of M. paratuberculosis, and progression to clinical disease.

USDA-ARS Action Plan NP 103- Animal Health Current Johne's Disease Research

- Characterization of Antigens, Virulence Markers, and Host Immunity in the Pathogenesis of Johne's Disease
- Genome Wide Analysis of M. Paratuberculosis Pathogenesis
- Mycobacterium paratuberculosis Imunodiagnostic Antigen Discovery with Protein Microarrays-CFDA No. 10.310
- Alternate Iron Regulatory Pathways in Mycobacterium Avium subsp. Paratuberculosis

NCBA's Goals for Johne's Disease Work

- Herd security initiatives—producers will work to prevent and control Johne's disease in their cattle herd.
- Support Johne's disease education and control practices in the states.
- Support continued funding for Johne's disease research as well as education and outreach to stakeholders.

NCBA Promotes Herd Security to Control Johne's Disease

- Beef Quality Assurance (BQA) Best Management Practices.
- NCBA Beef Cattle Herd Security Working Group.
- Cattle Producer Discussion and Outreach Education.

NCBA Supports Johne's Disease Education through the BQA Program

BMP Checklist for controlling Johne's (M. paratuberculosis) Disease

Notes	Rank biosecurity importance of each Johne's control item and note if being addressed:
	Understand how Johne's disease can impact my herd and how it is spread.
	Whole herd is screened using an antibody ELISA test (measures antibody in blood).
	Whole herd is tested using a fecal culture.
	Animals testing positive are culled. (Johne's is a reportable disease in some states.)
	Replacement heifers are tested prior to introduction to the herd.
	Calves from cows testing positive are removed to a feedyard.
	Implemented follow-up testing program for Johne's and have reviewed with herd veterinarian.

NCBA

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- The National Cattlemen's Beef Association is working to prevent Johne's disease from entering low risk herds and controlling the disease in infected herds as part of our commitment to total quality beef cattle health management.

Thank You!

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