

Lessons Learned from Minnesota Johne's disease Demonstration Herd Control Program

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Introduction

Six dairy cattle and three beef cattle herds in Minnesota have participated in a Johne's disease (JD) demonstration herd control program for the past six years. Objectives of this project were to 1) evaluate the longterm effectiveness and feasibility of management-related disease control on development of JD on dairy and beef cattle operations, 2) provide information and materials for education and training of public and private practice veterinarians and cattle producers and 3) develop and evaluate management, testing and monitoring strategies for use in control of JD in cattle herds.

Materials and Methods

Cattle herds involved in this project have been selected based on history of clinical JD in the herd with organism detection confirmation; willingness of the herd owner to keep records, including individual animal identification, cattle movements, and health events; and willingness to implement management practices to control JD. Within each herd, baseline and annually renewed information has been collected through completion of a JD risk assessment and herd manage-

ment plan to define and prioritize risks, and recommended management changes to address those risks were identified in the written herd plan. In addition to monitoring of clinical JD, fecal and serum samples from all cattle have been tested by bacterial culture and ELISA, respectively, on an annual basis.

Results

Results to date from these herds show a reduction in clinical Johne's disease in nearly all dairy and beef cattle herds after implementation of management changes. A reduction in fecal shedding has occurred in most herds, while a reduction in ELISA prevalence has been observed in some herds. Variability in test results (culture and ELISA) from individual cattle has been observed, especially in cattle identified with low positive test results.

Significance

Much potential remains for use of these data and stored biologic samples in future epidemiologic and other studies.