

Progress on Johne's Disease Control in Colorado

Frank Garry, Coordinator, ILM-CSU

The Integrated Livestock Management (ILM) program at CSU directs attention to significant issues in livestock agriculture. Johne's disease (JD) is one of these issues. Our initial focus has been on helping to develop a voluntary statewide program that benefits the livestock industries. This effort requires several key elements, including: 1) education and awareness of the problem, 2) reliable testing and reporting services, 3) clearly enunciated guidelines for the program, and 4) research directed at the unique aspects of the disease in this state. In this article we will report the progress that has been made toward controlling Johne's disease in Colorado dairies and look to what we need to do in the future.

Education to Increase Awareness of JD

In November 1996, ILM began directing efforts at Johne's disease education for dairy producers and practitioners via the Colorado Dairy News. Since then we have published 4 additional articles (September and November 1997, January and July 1998) that can be found under outreach efforts on the ILM website (www.cvmb.colostate.edu/ilm). In November 1997 a questionnaire was distributed to assess and direct further educational needs. Forty-one Colorado dairy producers responded. Of the 41 producers nearly 70% perceived JD to be a moderate to major problem for the dairy industry, and more than 80% were moderately to highly concerned about introduction of the disease to their herd. Yet almost 80% of the respondents employed no management strategies to prevent introduction of the disease or control the disease within the herd. Information about JD, plus a dairy risk assessment checklist were assembled in a handout and distributed at 9 producer/practitioner seminars throughout the state during 1998. To obtain copies of these materials, or to schedule a seminar, please contact: Dr. Frank Garry, ILM coordinator (970) 491-037 or fgarry@lamar.colostate.edu.

Testing for Johne's disease

The CSU State Diagnostic Laboratory and the State Veterinarian's office have established serum ELISA testing for the disease in addition to fecal culture testing for the organism. Very limited testing for this problem was performed in Colorado before June 1997. Between 6/97 and 6/98, approximately 2800 samples were submitted to the Diagnostic Lab, and from 6/98 to 6/99 that number has increased to almost 10,000 samples. (See page 4 for more information on testing)

Colorado Johne's Advisory Committee (CJAC)

The state advisory committee to formulate a voluntary Johne's control program was formed in 1998. Representatives from the various livestock production groups and the State Veterinarian's office form this committee. The specific mission of the CJAC is to serve as a resource for the Colorado animal industry, helping to identify, control, and eventually eradicate JD from participating herds and flocks. Since the disease appears to be most prevalent, and most economically significant in dairy cattle, the committee will focus efforts first on establishing a program that works effectively for dairy producers, while gradually incorporating education and control efforts for other livestock producer groups.

The CJAC is developing a strategy specific to the needs of Colorado, but consistent with efforts on JD control in other parts of the country. Nine other states had JD advisory

committees or control programs when the CJAC was formed, and since then 8 more states have developed such committees, while 8 other states are planning to do so.

The National Johne's Working Group of the U.S Animal Health Association has worked to devise model programs that states could use as templates. CJAC expects to have outlined the Colorado program soon. There are likely to be two parallel aspects of the voluntary program. The Herd Status Program would help identify whether herds have infection or not, to encourage a premium value for animals from disease-free, or low-risk herds. The Preventive Management Program would help infected herds reduce the level of infection and reward such reductions with notification of improvement. Johne's disease is a 'reportable disease' in Colorado. Because federal regulations restrict the interstate movement of animals with JD, the State Veterinarian's office has felt the disease must be reported in order to support these regulations. There are several important points for producers and practitioners to understand about this rule. First, this rule requires reporting, but not quarantine of affected animals and herds. Via the CJAC, the State Veterinarians have specifically noted that quarantine would inhibit testing and voluntary control efforts. Therefore, as partners in the developing program, they have ruled that there will not be a quarantine for this disease. Second, the disease reporting applies to fecal culture results, not serum ELISA results. Fecal culture is the only "official" test for federal purposes. Third, the State Veterinarian's office can monitor the state's disease status, but owners can remain anonymous. If fecal culture samples are submitted by the herd veterinarian, with a coded herd identification rather than identification of the herd by name, reporting can be performed, but the herd remains anonymous, and protected by veterinarian-client confidentiality law. If you have further questions, please call the State Veterinarian's office.

ILM Research

Several research projects have been initiated by ILM to assist Colorado's efforts against JD. The ILM team headed by Dr Heather Hirst is collecting information on herd and individual cow infection status on cooperating dairies. We will use the information for a preliminary assessment of herd risk factors, management strategies and costs of JD on Colorado dairies. To work effectively against this slow and insidious infection, we believe it's very important to use information that directly applies to our own dairy industry and not rely on information derived from dairies outside the region that are very different. We are also improving testing methods, and characterizing the disease to define why it occurs in some infected animals, but not in others. Funding for these projects comes from the Colorado Ag Experiment Station and from private donations by Colorado dairy producers. This greatly appreciated support will pay dividends for the state in the future.

Summary

We believe Colorado is making good progress in establishing a JD control program that emphasizes education and voluntary producer participation in management and testing efforts. If you need information about Johne's disease, how our state program is progressing, or would like to be involved in these efforts please contact:

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