

Comparison of management characteristics between *Mycobacterium avium* subspecies *paratuberculosis* positive and negative herds

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The between-herd and within-herd prevalence of *Mycobacterium avium* subspecies *paratuberculosis* (MAP) infection on dairy farms is influenced by specific management practices. The Alberta Johne's Disease Initiative (AJDI) assesses farm-specific best management practices (BMPs) using a 34-question risk assessment. The associated MAP status of the herd is determined with six environmental fecal samples. The objective of this study is to compare BMPs between MAP-positive and negative herds. The AJDI goal is to have 80% (480 herds) of Alberta dairy farms participating in the program by December 31, 2012. As of January 1, 2012, uniformly trained veterinarians have collected environmental samples and completed risk assessments at 201 (35%) participating farms. Preliminary results analysing 159 matched risk assessments and fecal sample sets indicate that MAP-environmental sample positive herds (n=34) were significantly more likely to spread manure on pastures where heifers graze in the same year than MAP-negative herds (n=125). Water troughs and food bunks of MAP-negative herds were less frequently contaminated with manure. Herd size was higher in MAP-positive herds compared to MAP-negative herds. In MAP-positive herds, the number of positive environmental samples increased with an increasing herd size. Based on the first set of farms, we have detected a difference in management between positive and negative herds, which indicates that best management practices are effective tools to control MAP on dairy farms. As the sample size increases, confounding effects of farm characteristics on the relationship between MAP infection status and management practices will be determined. Also, potential differences in evaluating management practices between participating veterinarians will be analysed and presented.