

Bottlenecks in best management practices identified in the Alberta Johne's Disease Initiative (AJDI)

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Johne's disease (JD) which is caused by *Mycobacterium avium* subsp. *paratuberculosis* (MAP) is an inflammation of the gut and leads to economic losses through reduced milk yield and early culling. The spread of the bacteria is influenced by specific management practices on farm. Within the Alberta Johne's Disease Initiative (AJDI) the herd veterinarian assesses the farm management with a questionnaire and suggests specific changes to lower the risk of MAP transmission. The associated MAP status of the herd is determined by collecting six environmental fecal samples. The objectives of this study are to quantify common management practices which are known to increase the risk of MAP transmission and to compare the management strategies between positive and negative herds. Those management practices may be important tools to control MAP on dairy farms in Alberta. Since November 2010, trained veterinarians have collected environmental samples and completed risk assessments at 201 (35%) participating farms. The AJDI goal is to have 80% of the producers enrolled by the end of 2012. Preliminary results after analysing 182 risk assessments showed that 77% of the farmers do not ask for the MAP infection status of the seller herd before they buy animals, 63% do not have any restrictions of visitor access to any animal and 55% feed pooled milk from several cows to their calves. By comparing the answers in the risk assessments between positive (n=34) and negative herds (n=125), we found that there are differences in management. While it was observed at 5% of the negative farms that manure is spread on pastures where heifers graze at the same year, it was observed at 12% of the positive farms. While manure contaminated feeders or waterers were present at 58% of the negative farms, they were present at 76% of the positive farms.

Implications: This study shows that trade behaviour and management can be improved on most of the farms. The management is different between positive and negative herds which shows the potential for management changes as a tool to control Map.