**AB1258 Shedding of Mycobacterium avium subspecies paratuberculosis (MAP) in naturally infected dairy calves**

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Background: MAP is the bacterium responsible for Johne’s disease which can result in production and reproduction losses. Around 50% of farms and 15% of cows are infected. MAP is also associated with Crohn’s Disease in humans. The common belief is that MAP is passed from cow to calf, however MAP infected calves also excrete MAP in their feces which may necessitate a change in the control programs management practices.

Objectives:

1. Determine the proportion of you stock shedding MAP on infected farms
2. Estimate the concentration of MAP shed by different age groups
3. Estimate the proportion of MAP contaminated group pens

Methods: 18 farms were selected from the Alberta Johne’s Disease Initiative, all of which had one positive environmental sample. Fecal samples from all calves and heifers were collected as well as environmental and dust samples.

Outcome: based on the analysis finished to date live MAP was isolated from 3.4 % of samples, a higher number than previously believed. As well, 13 % of environmental samples were positive. MAP infectious calves are present on both large, high prevalence farms as well as mid-sized operations.

Recommendations: Calves shedding live MAP can potentially infect other calves. MAP control should not be limited to reduction of direct contact between calf and cow but also incorporate best hygiene management practices calves’ environment.

Benefit to Industry: The use of best hygiene management practices will help to reduce MAP transmission as well as control other fecal orally transmitted pathogens (Coccidia, E coli, Salmonelle, Cryptosporidium, and many others).

KTT:

* Results communicated with participating farmers and vets
* Results presented at 2 ADJI committee meetings
* Article in the Milking Times
* Presentation at International Colloquium on Paratuberculosis
* Manuscript submitted