The natural history of *Mycobacterium avium* subspecies *paratuberculosis* as interpreted by the FUIDI #2 Map Test

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One thousand, one hundred and thirteen dairy cows within USDA’s Florida Dairy Herd Demonstration Project were studied using the FUIDI #2 Map ELISA test component of the FUIDI Herd Management Schema in order to better understand the natural history of Map infection.

The FUIDI #2 test identified 110 animals as having some level of either ongoing or very recent infection. Of these 110 cows, 9 cows were designated as having significant ongoing infection and 6 cows were identified as being suspicious for having significant infection.

Fourteen months later, 661 of the original 1,113 cows were available for re-analysis. Of the 91 cows previously identified as having low or non-diagnostic evidence of ongoing infection, 54 were available for re-evaluation. Of these 54 cows, 45 had lost all evidence indicative of active infection, 8 exhibited evidence of continuing infection, and 2 progressed into the category indicative of significant active infection.

Of the 540 previously negative cows in the FUIDI #2 test, fourteen months later 18.9% of these cows had evidence of active infection.

Presuming the FUIDI #2 data to be correct, the natural history of infection is comparable to that observed with *M. tuberculosis* in the human model system: namely that disease induction is rare relative to the true incidence of infection and in the majority of cases infected dairy cows can achieve immunological governance over Map.