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Supplementary Material

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Is TB testing lowering the risk of clinical Johne's disease in the Republic of Ireland?

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18 **Supplementary Table 1:** Univariable analysis examining associations between variables. P-values in bold highlight variables subsequently included in
 19 logistic regression models (n=179).

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	Breed	Parity	Pre-SICCT IFN	Post-SICCT IFN	Pre- SICCT MAP	Post- SICCT MAP	Avian response	Bovine response	Difference IFN Pre/Post SICCT
Parity	0.99								
Pre-SICCT IFN	0.75	0.74							
Post-SICCT IFN	0.07	0.62	0.56						
Pre-SICCT MAP	0.23	0.12	0.23	0.83					
Post-SICCT Map	0.25	0.92	0.20	0.63	<0.001				
Avian response (mm)	0.95	0.42	0.41	0.78	0.09	<0.001			
Bovine response (mm)	0.79	0.56	0.09	0.32	0.002	<0.001	<0.001		
Difference IFN Pre/Post	0.07	0.70	<0.001	<0.001	0.93	0.43	0.90	0.17	
Difference MAP Pre/Post	0.46	0.40	0.36	0.51	0.22	<0.001	<0.001	<0.001	0.39

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Supplementary Table 2: Associations between IFN- γ production and independent variables (n=179)

Dependent Variable	Coefficient	<i>P</i> Value	95% Conf. Interval	Model (Model <i>P</i> value)
Independent Variable				
IFN-γ Production				
Post-SICCT vs. Pre- SICCT	0.03	<0.001	0.02, 0.04	Testing Time point, Breed, (<i>P</i> : <0.001)
Non- Friesian vs. Friesians	-0.01	0.088	-0.02, 0.001	

Supplementary Table 3: Significant associations between MAP ELISA response and independent variables (n=179)

Dependent Variable	Coefficient	<i>P</i> Value	95% Conf. Interval	Model (Model <i>P</i> value)
Independent Variable				
MAP ELISA Response				
Post-SICCT vs. Pre- SICCT	33.0	<0.001	26.8, 39.3	Testing Time point, Avian PPD DTH response, Bovine PPD DTH response (<i>P</i> value: <0.001)
Avian PPD DTH response (millimetres)	3.9	<0.001	2.0, 5.8	
Bovine PPD DTH response (millimetres)	10.0	0.001	4.3, 15.7	

Supplementary Figure 1: Column A shows individual IFN- γ and MAP value recorded for each cow both pre and post-SICCT. Column B shows box plots of IFN- γ and MAP ELISA response both pre- and post-SICCT (n=179)

Supplementary Figure 2: Scatter plot showing the relationship between post SICCT IFN- γ and MAP ELISA antibody response (n=179). IFN- γ *1000 to aid visualization.

