

Buying in cows is associated with the presence of *Mycoplasma bovis* in Scottish dairy herds

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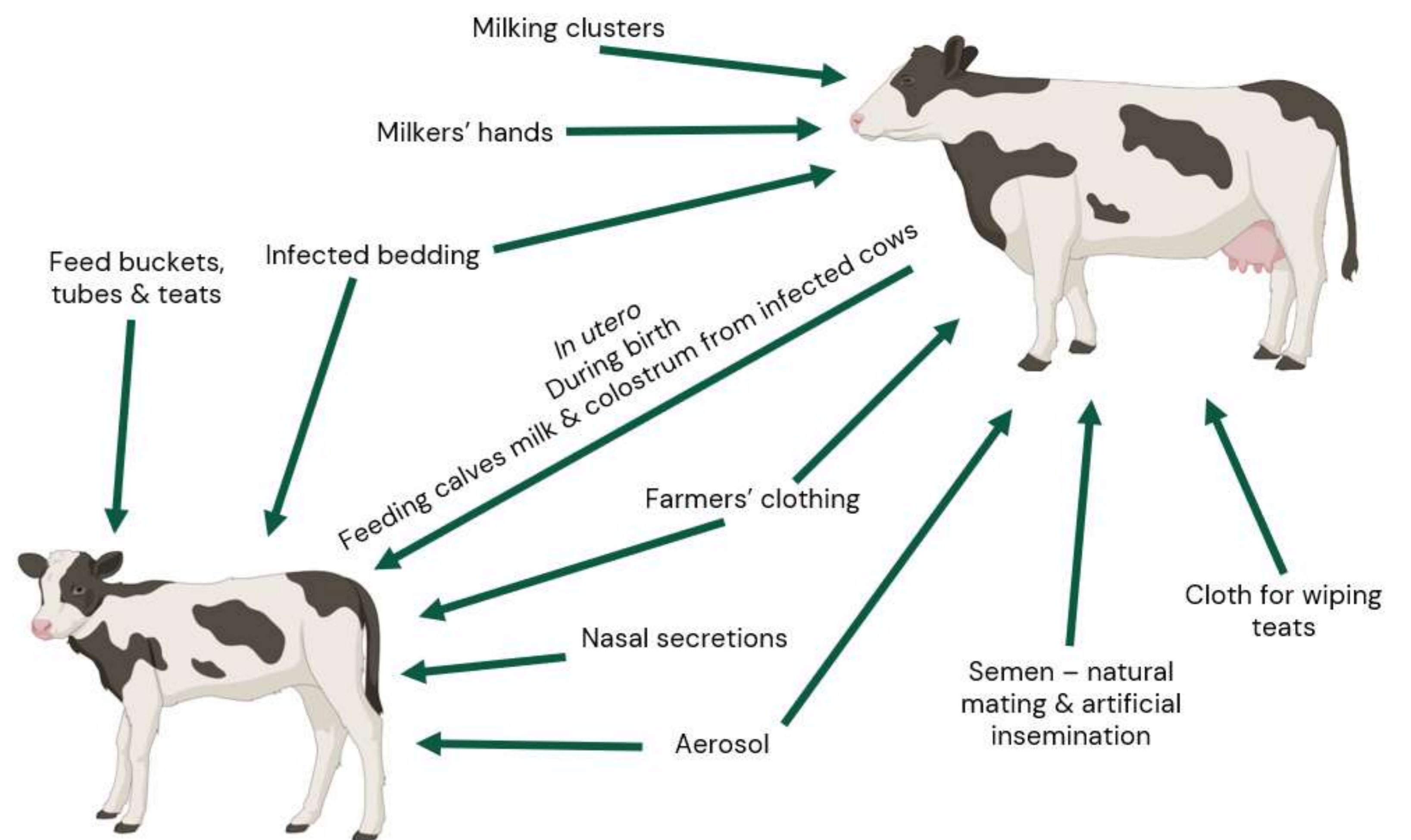
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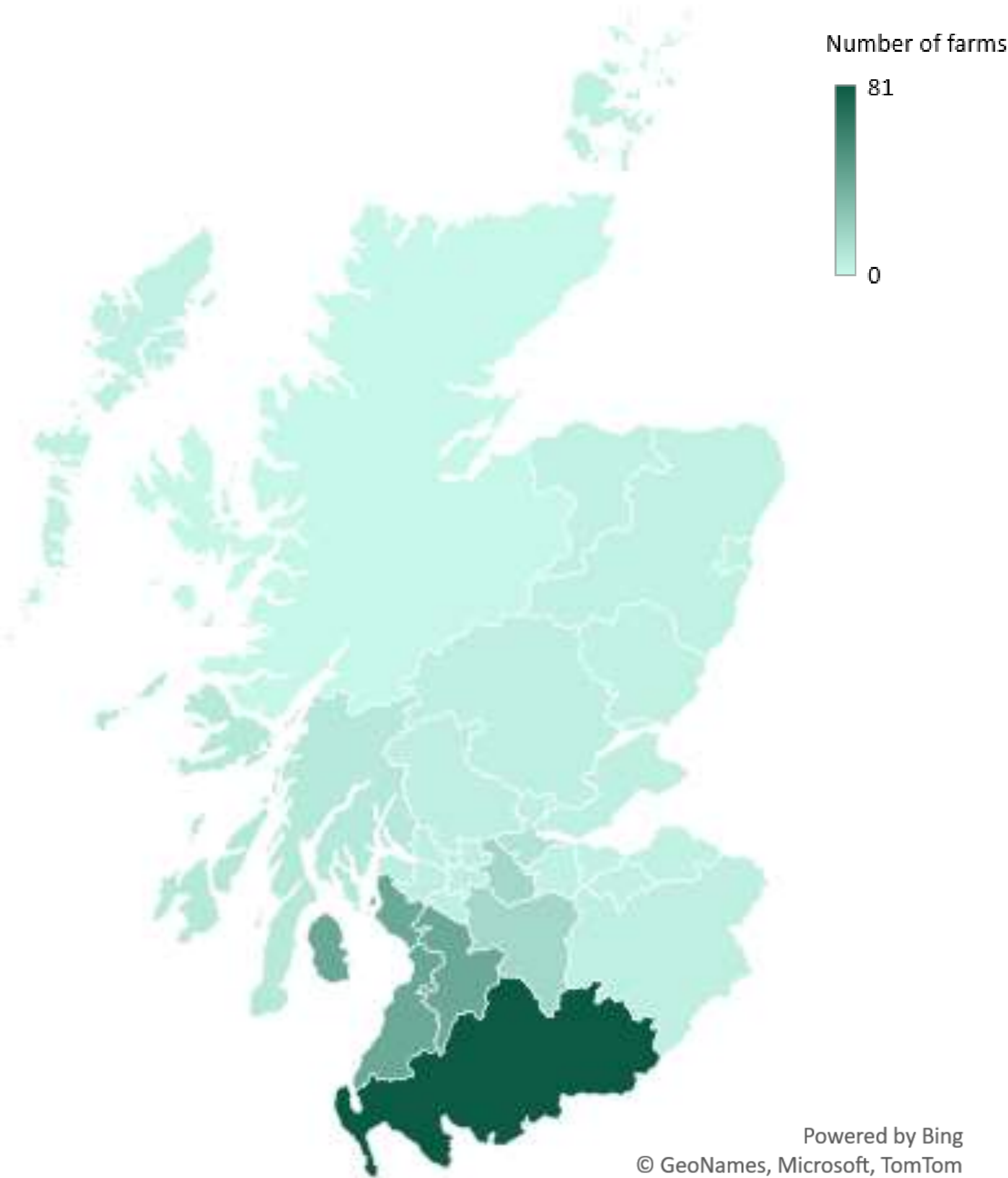


- *Mycoplasma bovis* (*M. bovis*) is an infectious bacterium causing respiratory disease in calves and mastitis in cows.
- The aim of the study was to estimate the bulk milk prevalence of *M. bovis* and identify potential risk factors for the disease.



Transmission routes of *M. bovis*.

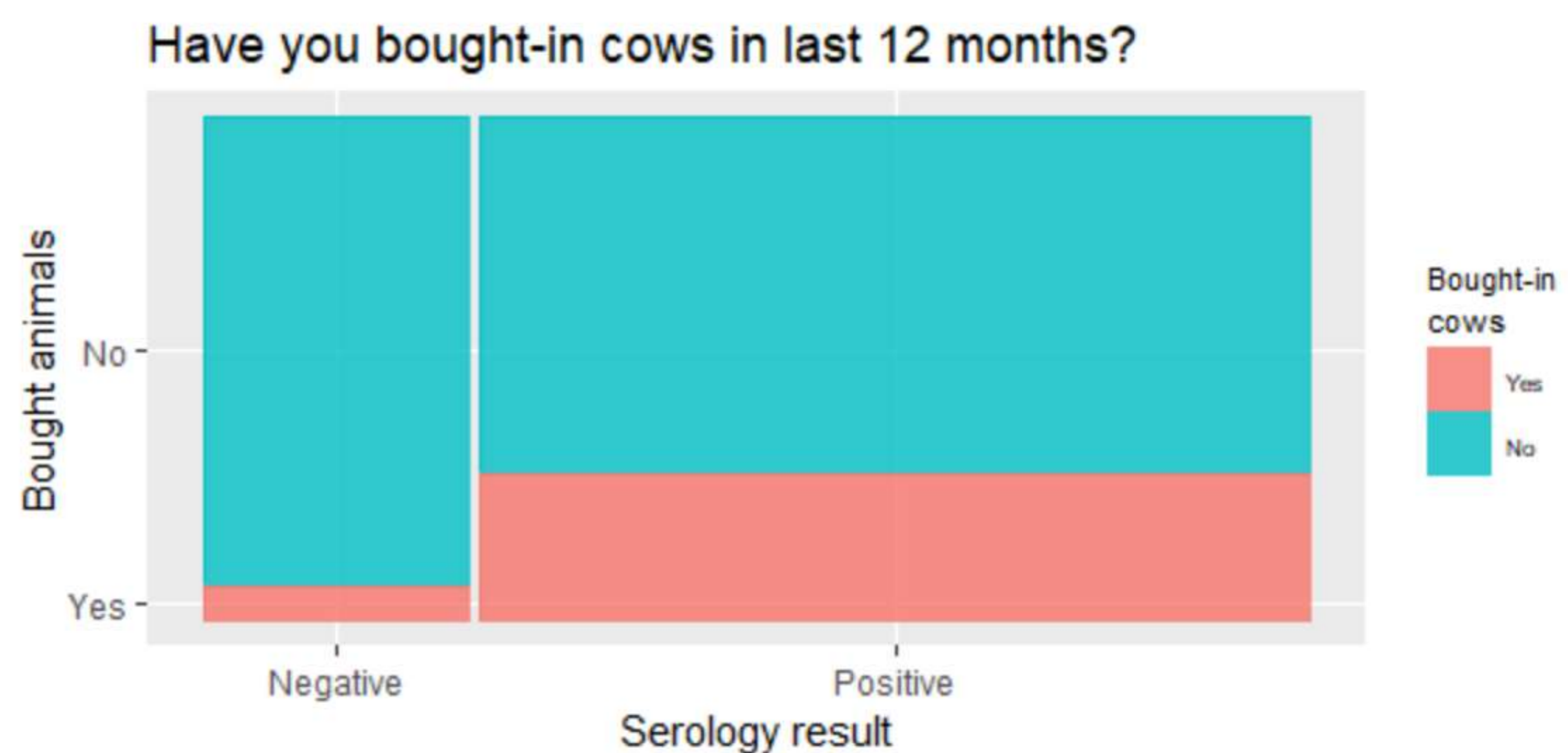
- Dairy farms throughout Scotland submitted 4 bulk tank milk samples (BTMS) over 1 year to be tested for the presence of antibodies to *M. bovis* and for the presence of DNA of *M. bovis* by PCR.
- A short questionnaire was completed on general herd management practices.



Density map of participants illustrating that the majority of farms were situated in the South West.

- 181 farms throughout Scotland participated in the study.
- 156 farms (86%) tested antibody positive in at least one of their BTMS.
- 81 farms tested consistently positive and 20 consistently negative.
- Only 3 herds tested positive by PCR.

- Univariable chi-squared analysis of the questionnaire data has identified 2 variables ($p < 0.05$); buying in cows and herd history of *M. bovis*.



Mosaic plot of buying in cows vs bulk milk serology.

Results from univariable analysis.

	Positive	Negative	Odds Ratio	Confidence Interval	p-value
Do you buy in cows?					0.0024
Yes	40	3	1		
No	97	41	0.18	0.04 – 0.53	
Herd history of <i>M. bovis</i>					0.0006
Never present & not considered	62	34	1		
Currently/previously suspect it may be present	42	8	2.88	1.26 – 7.24	
Previously or currently diagnosed	32	2	8.77	2.45 – 56.21	

- Bulk milk prevalence of *M. bovis* appears to be high.
- Consistently negative herds are more uncommon and therefore of real value to the industry. We want to aim to prevent *M. bovis* entering these farms.
- Next steps are to continue data analysis and conduct a calf seroprevalence study.

Acknowledgements

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