



Dairy farmer behaviour in infectious disease control

Naomi Prosser^{1*}, Jasmeet Kaler¹, Eamonn Ferguson², Michael Tildesley^{3,4}, Edward Hill³, Matt Keeling^{3,4}, Martin Green¹

¹School of Veterinary Medicine and Science, University of Nottingham, Sutton Bonington Campus, Leicestershire, LE12 5RD

²School of Psychology, University Park, University of Nottingham, Nottingham, NG7 2RD

³Zeeman Institute (SBIDER), Mathematics Institute, University of Warwick, Coventry, CV4 7AL

⁴School of Life Sciences, Gibbet Hill Campus, University of Warwick, Coventry, CV4 7AL

*Naomi.Prosser@nottingham.ac.uk

Current disease prediction models do not account for the dynamic, reactive and heterogeneous response of farmers to the risk of infection

Aims

- Investigate farmers' psychosocial belief and attitude distributions, and the relative importance of these on farmer decisions about disease control
- Estimate parameter distributions for the most important attributes to put into disease prediction models



Three key diseases
 Bovine viral diarrhoea
 Foot-and-mouth disease
 Bovine tuberculosis



Focus groups

3 groups
Feb 2020

Identify attributes to include in the survey



Survey

Send to 5,000 farmers
2020

Assess farmer attributes, beliefs and practices for disease control



Elicitation interviews

80 per disease
2021

Estimate important parameter distributions for farmer decisions about disease control

Acknowledgements

James Breen (University of Nottingham)
Participating farmers and veterinary practices
Funded by BBSRC

