

TB STUDIES IN NI

A series of studies have been carried out in NI to inform future actions to control and ultimately eradicate bovine TB.

TB Biosecurity Study

This study, involving approximately 200 farmers, was carried out by AFBI in Co Down in the summer of 2011. The aim was to compare several cattle and wildlife factors. Information was gathered about farm businesses, badger activity, buildings and boundaries. A badger sett survey was carried out (no wildlife intervention took place) and a series of recommendations were put forward, informed by a significant relationship between the presence of badgers and the risk of a TB breakdown. The importance of double fencing, purchasing strategies, farmers' willingness to receive additional advice on TB control and biosecurity measures were highlighted in the study.

Badger Cattle Proximity Study

This study also started in 2011 to examine and describe the extent of badger-cattle and cattle-cattle interactions, through the use of proximity loggers and GPS devices, at pasture and within cattle houses in the Downpatrick / Lecale area of County Down over a relatively short period of time (5 months). The study also examined and developed strategies to mitigate the extent of badger-cattle contact in both a housed and a grazing environment. It showed little contact between cattle and badgers, suggesting that routes of indirect contact (setts, latrines, water troughs or in farmyards) are important potential transmission routes.

Badger Sett Survey

A field survey for the presence of badger setts in Co Down took place in 2013/14. Survey work was carried out in two 100 km² zones in Co. Down. The surveys were carried out over a total of 25 weeks: 10,755 fields were surveyed, with 6.9% containing at least one badger sett. In the two zones, the resulting badger sett densities were 0.91 and 0.88 per km². This survey provided useful benchmarking information for the local badger population.

Test, Vaccinate, Remove (TVR) wildlife intervention research

The Test/Vaccinate/Remove (TVR) model was researched in NI during a five year project in an area of 100 km² in Co Down. It involved trap-side testing of capture badgers, vaccinating those that tested negative for bTB (using a BCG vaccine) and removing those that tested positive for TB using the Dual-Path Platform VetTB test. The aim of the study was to assess the feasibility of using this as a suitable TB intervention. In total there were test results from 824 individual badgers.

The effectiveness of TVR is largely dependent on the efficiency of badger capture and the accuracy of badger field tests. Overall estimates for whole blood showed a test sensitivity of 0.69 (range of 0.48-0.88) and specificity of 0.98 (range of 0.96-0.99). The model output indicated a statistically significant reduction in badger TB prevalence over the intervention period, from 14% at the start to 1.9% after five years of the study.

There is relatively little available information on this study. Wildlife intervention projects like TVR typically involve substantial expenses due to the complexity of fieldwork, testing, vaccination, and removal processes, and require significant collaboration with stakeholders.