



BOVINE TB

Eradicating bovine TB in England

IN response to the letter from Tom Langton and colleagues (*VR*, 20/27 September 2025, vol 197, p 247), bovine TB (bTB) remains one of the most difficult and persistent animal health challenges, causing devastation for farmers and rural communities.

Defra is working at pace on a new, comprehensive bTB strategy for England. Our approach will use expert information and the best available science to plan towards a TB-free future by 2038.

Following a record year for badger vaccination in 2024, a new Badger Vaccinator Field Force will be deployed next year to drive down TB rates, protect farming businesses and develop a cattle vaccine.

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A new Badger Vaccinator Field Force will be deployed next year to drive down TB rates

focused on the core policy science: the Randomised Badger Culling Trial (RBCT) 1998–2005, a large scale, expensive study comparing the incidence of bTB with two cull treatments in 10 areas against 10 control areas without intervention. The results of the proactive cull study were published in 2006,¹ claiming a decrease in the incidence of bTB within the cull areas. Outside cull areas, an apparent increase in incidence was reported, with a badger and bTB perturbation effect hypothesised. The reports were used as the central justification for the policy of mass culling a high proportion of healthy badgers as well as infectious ones introduced by the coalition government in 2013. However, in 2022 a study² suggested that it had not reduced the incidence of bTB.

A reanalysis of RBCT proactive culling was published in 2024,³ on which I was a coauthor, which suggested that its statistical analysis was flawed, and when corrected there was no evidence of either a positive effect of culling, or indeed a perturbation effect. As a consequence, two of the original RBCT scientists defended their statistical analysis.^{4,5} However, a follow-up paper,⁶ reviewed by the head of Biostatistics Scotland,⁷ demonstrated that this analysis was also unsound.

Finally, a recent report by Godfray and colleagues⁸ conceded that the original RBCT analysis was defective

and proposed an alternative analysis suggesting a weak effect of culling ($P=0.047$).

Using the same methodology as the Godfray report, there is no evidence of a perturbation effect upon which mass culling of healthy badgers has been based. Godfray reported the incorrect information criteria (IC) for model selection and when the correct IC are applied to his models, the statistical model that is selected has incidence independent of culling. That is, culling has no effect on the incidence of bTB in cattle herds. This mistake has now been amended by Defra but not the incorrect outcome. Errors are further explained in a preprint.⁹

A request has been sent to retract the 2006 RBCT proactive culling paper, as the results have been shown to be untenable. In my view papers published since 2006 that are reliant on the veracity of the RBCT analysis and results also need to be corrected or retracted.

The single major piece of evidence that mass culling of healthy badgers can be used as a tool for control of bTB in cattle has been shown to be incorrect. Hence, mass badger culling should be removed from the 'toolbox' that is so often mentioned in terms of TB control and the role of badgers reconsidered accordingly. Likewise, if removal of infected badgers through culling is ineffective, removal of infected badgers through vaccination may similarly be ineffective and a waste of valuable resources.

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Evidence against culling healthy badgers

DEBATE in this journal and elsewhere on the merits of badger culling to control of bovine TB (bTB) in cattle has

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Had the analyses, been done correctly in 2006 then it is almost certain there would have been no badger culling since 2013. It has been carried out at great public and industry cost, and at the expense of the welfare of wildlife and cattle, and as a major distraction away from what I consider to be the true reasons for the bTB epidemic.

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References

- 1 Donnelly CA, Woodroffe R, Cox DR, et al. Positive and negative effects of widespread badger culling on tuberculosis in cattle. *Nature* 2006;439:843–6
- 2 Langton TES, Jones MW, McGill I. Analysis of the impact of badger culling on bovine tuberculosis in cattle in the high-risk area of England, 2009–2020. *Vet Rec* 2022;190:e1384
- 3 Torgerson PR, Hartnack S, Rasmussen P, et al. Absence of effects of widespread badger culling on tuberculosis in cattle. *Sci Rep* 2024;14:16326
- 4 Mills CL, Woodroffe R, Donnelly CA. An extensive re-evaluation of evidence and analyses of the Randomised Badger Culling Trial (RBCT) I: within proactive culling areas. *R Soc Open Sci* 2024;11:240385
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- 6 Torgerson PR, Hartnack S, Rasmussen P, et al. Randomised Badger Culling Trial – no effects of widespread badger culling on tuberculosis in cattle: comment on Mills, Woodroffe and Donnelly (2024a, 2024b). *R Soc Open Sci* 2025;12:241609
- 7 Brewer, M. Prepublication review of 'Randomised Badger Culling Trial-no effects of widespread badger culling on tuberculosis in cattle: comment on Mills, Woodroffe and Donnelly (2024a, 2024b)'. <https://publons.com/wos-op/review/27191583> (accessed 26 September 2025)
- 8 Defra. Bovine tuberculosis Godfray evidence review update. 2025. <https://bit.ly/461G5Jr> (accessed 26 September 2025)
- 9 Torgerson PR. Randomized badger control trial communication.docx. 2025. <https://doi.org/10.6084/m9.figshare.30165028.v1> (accessed 26 September 2025)

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DEATH NOTICES

Heinrich On 13 September 2025, Christine Luise Heinrich, DVOphthal, DipECVO, MRCVS, of Leominster, Herefordshire. Dr Heinrich qualified from Munich and was admitted to the register in 1995.

Moore On 23 September 2025, Robert Paul Moore, BVM&S, HonDVM&S, MRCVS, of Halstock Leigh, Somerset. Dr Moore qualified from Edinburgh in 1967.

Rutty On 14 September 2025, Donald Arthur Rutty, BVetMed, DipToxRCP, DLAS, FRCPath, HonFRCVS, of York. Dr Rutty qualified from London in 1958.

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