

Wildlife and Countryside Link response to the consultation on a Draft Strategy for Achieving "Officially Bovine Tuberculosis-Free" Status for England

September 2013

Wildlife and Countryside Link (Link) brings together 41 voluntary organisations concerned with the conservation and protection of wildlife, countryside and the marine environment. Our members practise and advocate environmentally sensitive land management, and encourage respect for and enjoyment of natural landscapes and features, the historic and marine environment and biodiversity. Taken together our members have the support of over eight million people in the UK and manage over 750,000 hectares of land.¹

This response is supported by the following 10 organisations:

- Badger Trust
- Bat Conservation Trust
- Buglife - The Invertebrate Conservation Trust
- Friends of the Earth England
- Humane Society International/UK
- International Fund for Animal Welfare
- The Mammal Society
- Royal Society for the Prevention of Cruelty to Animals
- The Wildlife Trusts
- Woodland Trust

1. Introduction

Link recognises that bovine tuberculosis (bTB), and more specifically the methods adopted in attempts to control and ultimately eradicate the disease, cause significant hardship for farmers, and come at a significant cost to the taxpayer. In this context it is encouraging to see government developing a long-term view on this issue.

The long-term aim of achieving Officially bTB-Free (OTF) Status for England, through a staged risk-area-based process, is welcome. The development of risk-based approaches to cattle trading and movement is also much needed, and the focus on effective application of disease control measures in cattle, best practice in livestock farming achieved through advice and appropriate use of rewards and penalties, the development of improved testing techniques, and the research into new tools particularly relating to vaccination, are all commendable.

However, the draft Strategy shows a misplaced focus in some important respects. Most notably, there is far too great an emphasis on control of the perceived infection reservoir in badgers in the High Risk Area (HRA) through the use of culling, when independent scientific opinion is at best highly sceptical about the likely impact of widespread badger culling on the incidence and prevalence of bTB in cattle.²

The Strategy speaks of bTB affecting 'sustainable farming' in England while providing no explanation or definition of what is meant by 'sustainable farming' – there is evidence to suggest that the recent trend towards fewer, larger and more intensive cattle units in the UK

¹ Wildlife and Countryside Link is a registered charity (No. 1107460) and a company limited by guarantee in England and Wales (No.3889519).

² Bateson, P. *et al.* (2012) Culling badgers could increase the problem of TB in cattle, *The Observer*, 14 October, <http://www.theguardian.com/theobserver/2012/oct/14/letters-observer?uni=Article:in%20body%20link>

is not environmentally sustainable³, while financial stability in the sector currently relies on a complex raft of government subsidies from both the UK and EU.

The importance of reversing the alarming recent increases in cattle movements⁴, as recommended by the European Commission⁵, is underplayed, as is the poor sensitivity⁶ and variable application⁷ of the current SICCT-based cattle surveillance system.

The Strategy speaks of bTB as being a ‘devastating disease’, which it clearly is for those farmers affected, however in a clinical sense the proportion of infected animals (both cattle and badgers⁸) who ever suffer significantly is very low; other clinical issues such as lameness⁹ and mastitis¹⁰ are far more common in cattle than is bTB. The ‘devastating’ impact of bTB largely results from efforts to eliminate infection, rather than any direct impact of clinical disease, and there are those within the veterinary and scientific communities who do not feel that an aggressive approach to eradication is appropriate¹¹, a viewpoint that should be given consideration in the Strategy.

The summary document¹² speaks of the potential risk to human health from bTB, without attempting to quantify this risk – by Defra’s own admission the risk to the public is ‘very low’¹³, a fact reiterated by independent experts¹⁴ and a point that should be emphasized in the summary document and throughout the draft Strategy document. The messaging on human health risk through these documents is both conflicting and confusing.

In the summary document, the government’s obligations as summarised in the section entitled ‘The Problem’ (p7), and the intentions of the draft Strategy under the section entitled ‘Approach’ (p8), both fail to emphasise the government’s clear responsibility under national law, EU regulations, and international commitments to agreements such as the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention¹⁵), to protect wild animal populations and their welfare. These are key government obligations and should be emphasised as such in the draft Strategy, since the approaches to controlling the ‘wildlife reservoir’ in badgers clearly place animal welfare and local/regional badger

³ Friends of the Earth (2010) Pastures New - a sustainable future for meat and dairy farming, http://www.foe.co.uk/resource/reports/pastures_new.pdf

⁴ Rural Payments Agency (2010) Statistics, http://rpa.defra.gov.uk/rpa/index.nsf/vContentByTaxonomy/BCMS**Statistics**2010%20Statistics**?OpenDocument

⁵ European Commission Health and Consumers Directorate-General (2011) Final Report of an Audit carried out in the United Kingdom from 05 to 16 September 2011 in order to Evaluate the Operation of the Bovine Tuberculosis Eradication Programme

⁶ Karolemeas, K. *et al.* (2012) Estimation of the Relative Sensitivity of the Comparative Tuberculin Skin Test in Tuberculous Cattle Herds Subjected to Depopulation, PLOS One, Vol:7, ISSN:1932-6203, Pages:e43217-e43217

⁷ Fisher, D. (2010) Reactor Isolation and Other Proposed Improvements to Bovine Tuberculosis Control in Wales, Animal Health & Welfare Inspector, Pembrokeshire County Council, September 2010

⁸ Independent Scientific Group on Cattle TB (2007) Bovine TB: The Scientific Evidence (final RBCT report)

⁹ Barker, Z.E. *et al.* (2010) Assessment of lameness prevalence and associated risk factors in dairy herds in England and Wales, Journal of Dairy Science, 93:3 932–941 dx.doi.org/10.3168/jds.2009-2309

¹⁰ Bradley, A.J. *et al.* (2007) Survey of the incidence and aetiology of mastitis on dairy farms in England and Wales, Veterinary Record, 160:8 253-258 doi:10.1136/vr.160.8.253

¹¹ Torgerson, P.R. and Torgerson, D.J. (2008) Does risk to humans justify high cost of fighting bovine TB? Letter to Nature Volume 455

¹² Defra (2013) Consultation on a Strategy for Achieving “Officially Bovine Tuberculosis-Free” Status for England, https://consult.defra.gov.uk/farming/tb/supporting_documents/Consultation%20Document.pdf

¹³ Reducing bovine tuberculosis <https://www.gov.uk/government/policies/reducing-bovine-tuberculosis>

¹⁴ Torgerson, P.R. and Torgerson, D.J. (2010) Public health and bovine tuberculosis: what's all the fuss about?, Trends in Microbiology, Volume 18, Issue 2, Pages 67-72, ISSN 0966-842X, <http://dx.doi.org/10.1016/j.tim.2009.11.002>

¹⁵ Convention on the conservation of European wildlife and natural habitats, http://www.coe.int/t/dg4/cultureheritage/nature/bern/default_en.asp

populations at significant risk. The current draft pays scant reference to ‘maintaining biodiversity’ in its Executive Summary and Strategy Aim sections and has no mention of *Biodiversity 2020*, the Government’s strategy for England’s wildlife and ecosystem services.¹⁶ The need to protect and improve the welfare of both cattle and wildlife is barely considered.

Finally, in his introduction to the draft Strategy, by stating that ‘In the absence of a major wildlife reservoir, this approach [cattle testing and removal of reactors] has been successful...’, the Secretary of State implies that current cattle measures to control bTB in cattle are failing because of the reservoir of infection in badgers. There is no evidence to support this assertion, and indeed stricter cattle testing measures and movement restrictions introduced over the past 18 months have already resulted in a reduction in the incidence of bTB in both individual cattle and in herds without any badgers being killed¹⁷.

2. Response to consultation questions

Below we respond to specific questions in the consultation questionnaire.

Question 6: Do you agree with the stated aim of the draft Strategy?

The aim of achieving OTF Status for England is logical, given the costs of the current surveillance and reactor response strategies to farmers and taxpayers and the current regulations under which the government and the industry are required to operate. However, the stated aim of doing so ‘while maintaining a sustainable livestock industry’ makes the assumption that the livestock industry (ie the dairy and beef sectors) is currently sustainable, when there is significant evidence to the contrary.¹⁸ The document should set out exactly what is meant by a ‘sustainable livestock industry’ and how the Strategy is designed to help achieve this goal. It needs to recognise that there may need to be some short-term impacts on the industry in order to achieve long-term gain.

Care must be taken when interpreting experiences in other countries. The document places significant weight on the success of policies in countries where widespread culling has been undertaken to control identified wildlife reservoirs, while underplaying other significant differences between eradication policies in those countries and in England, including compensation programmes, cost burdens, and responses to positive test reactors.

The Strategy regarding bTB control within the UK varies significantly between jurisdictions¹⁹, and the Strategy should take proper account of the policies and experiences within devolved jurisdictions in the UK, rather than looking further afield. For example, patterns of bTB incidence in Northern Ireland²⁰ closely mirror those in the Republic of Ireland²¹ over the past

¹⁶ Defra (2011) *Biodiversity 2020: A strategy for England’s wildlife and ecosystem services*.

¹⁷ Defra (2013) Monthly publication of National Statistics on the Incidence of Tuberculosis (TB) in Cattle to end May 2013 for Great Britain, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/229527/bovinetb-statsnotice-14aug13.pdf

¹⁸ Friends of the Earth (2010) *Pastures New - a sustainable future for meat and dairy farming*, http://www.foe.co.uk/resource/reports/pastures_new.pdf

¹⁹ Welsh Government (2012) *The Strategic Framework for Bovine TB Eradication*, <http://wales.gov.uk/topics/environmentcountryside/ahw/disease/bovinetuberculosis/bovinetberadication/tbstrategi/framework/strategicframeworkfortberadication/?lang=en>

²⁰ Department of Agriculture and Rural Development for Northern Ireland, TB statistics, <http://www.dardni.gov.uk/index/statistics/animal-disease-statistics/statistics-tuberculosis.htm>

²¹ Irish Government, Department of Agriculture, Food and the Marine, TB statistics <http://agriculture.gov.ie/animalhealthwelfare/diseasecontrol/bovinetbbrucellosiseradicationsschemes/statistics/tbstats/>

decade, in spite of significant differences in wildlife control policies between North and South.

Question 9: Do you agree with the Strategy's overall approach?

The Strategy's approach includes 'supporting farmers' through the use of 'rewards and penalties' associated with (*inter alia*) compensation arrangements, and by ensuring that farmers have the 'right incentives' for tackling bTB. However, it is not clear whether farmers will be forced to adopt wildlife control measures with which many of them disagree, by virtue of the fact that they are in the HRA, or possibly the Edge Area. No farmer or landowner should be forced to adopt wildlife control measures with which he or she disagrees on scientific and/or ethical grounds.

The description of current bTB control measures does not appear to fully recognise the impact of poor compliance and enforcement, for example through delayed reactor isolation. Problems with compliance and enforcement were recognised and reported recently by both auditors from the European Commission²², and a former animal health inspector²³. Every effort must be made to ensure full compliance with and enforcement of cattle measures if they are to be effective.

Question 10: Do you agree in principle with the "risk-based approach" proposed under the draft Strategy?

Using a risk-based approach makes logical sense, although certain requirements relating to biosecurity, cattle testing and movement need to be rigorously applied (and audited) across all areas in order to ensure the overall success of the Strategy.

Risk-based trading should help, although we would favour the introduction of a mandatory scheme based on herd bTB risk ratings, rather than the suggested voluntary scheme. Trading and moving cattle from the HRA to Edge or LRAs should be avoided at all costs, given the limited sensitivity of current bTB tests and the variable compliance levels with cattle controls. The implementation of biosecurity measures should be factored into the bTB risk ratings for herds, and their implementation should be linked to compensation arrangements. Immediate isolation of reactor cattle should be a central biosecurity measure.

Question 11 and 12: Do you agree with the objectives and proposed package of measures for each draft sub-strategy?

a. Low Risk Area (LRA)

Any reduction in surveillance within the LRA, aimed at reducing the surveillance burden on cattle keepers and government, should be undertaken with caution while bTB continues to be endemic in other areas. Otherwise, lack of compliance with risk-based trading principles or unscrupulous trading practices could easily reintroduce bTB into an OTF area, placing its classification at risk.

b. Edge Area

Objectives for the Edge Area include 'research to determine the role of badgers in spreading bTB', however there is no indication in the strategy to suggest what this research will consist of, who will carry it out, or how it will be funded.

²² European Commission Health and Consumers Directorate-General (2011) Final Report of an Audit carried out in the United Kingdom from 05 to 16 September 2011 in order to Evaluate the Operation of the Bovine Tuberculosis Eradication Programme

²³ Fisher, D. (2010) Reactor Isolation and Other Proposed Improvements to Bovine Tuberculosis Control in Wales, Animal Health & Welfare Inspector, Pembrokeshire County Council, September 2010

In order to protect against the possibility of bTB within herds in the Edge Area going undetected, the use of severe testing interpretation should be advocated for all cattle tests in this and the HRA.

c. High Risk Area (HRA)

The Strategy places far too great an emphasis on control of the perceived infection reservoir in badgers in the HRA through the use of culling, when independent scientific opinion is at best highly sceptical²⁴ about the likely impact of widespread badger culling on the incidence and prevalence of bTB in cattle.

The 'Tentative Timeline of Activity up to 2025', and the HRA strategy, includes no reference to the potential for immediate wider strategic use of injectable badger vaccines within the HRA. While there are challenges associated with the delivery and cost of injectable vaccines for badgers, badger vaccination is an effective and viable strategy for reducing the prevalence of bTB in badgers, thereby protecting badger populations against disease and reducing the risk of transfer to cattle. It is also a more humane and publically acceptable approach to tackling the disease in wildlife. The Strategic Framework for Bovine TB Eradication in Wales²⁵ published by the Welsh Assembly Government in March 2012, outlines the rationale adopted by the Welsh Assembly Government with regard to use of the injectable badger vaccine, and smaller scale badger vaccination projects are underway in several locations in England, under the management of various wildlife organisations.

While it is true that the impacts of vaccinating badgers with the injectable badger vaccine on bTB incidence in cattle are unknown, nevertheless the evidence accumulated to date^{26, 27}, suggests that by achieving even modest vaccination coverage among adult badgers, the prevalence of bTB within the population will reduce (unlike with culling where the prevalence has been shown to increase in surviving badgers²⁸), the risk to unvaccinated cubs will reduce substantially, and the issue of perturbation can be avoided. It seems likely, therefore, that the potential benefits of vaccination have been underestimated, and that, in spite of the practical challenges and cost implications, the development of a comprehensive strategy for badger vaccination through the formation of appropriate partnerships between government, farmers/landowners, wildlife organisations and civil society groups should be prioritised, particularly in High Risk and Edge areas. Vaccination has the potential to be more cost effective than culling, particularly with the high cost of policing night-time shoots.²⁹

Within each of the identified risk areas, there are, as alluded to on p26 of the draft Strategy, considerable variations in bTB history and incidence. The government should place great emphasis on looking at those farms within the HRA that do not have a history of bTB breakdowns, to see if practices can be identified which might explain these apparent

²⁴ Bateson, P. *et al.* (2012) Culling badgers could increase the problem of TB in cattle, The Observer, 14 October, <http://www.theguardian.com/theobserver/2012/oct/14/letters-observer?guni=Article:in%20body%20link>

²⁵ Welsh Government (2012) The Strategic Framework for Bovine TB Eradication, <http://wales.gov.uk/topics/environmentcountryside/ahw/disease/bovinetuberculosis/bovinetberadication/tbstrategicframework/strategicframeworkfortberadication/?lang=en>

²⁶ Carter, S.P., *et al.* (2012) BCG Vaccination Reduces Risk of Tuberculosis Infection in Vaccinated Badgers and Unvaccinated Badger Cubs, PLoS ONE 7(12): e49833, doi:10.1371/journal.pone.0049833

²⁷ Environment, Food and Rural Affairs Committee (2013) Second Report, Vaccination against bovine TB, p20, para48, 'A vaccine that reduces the excretion of *M. Bovis* bacteria is a powerful tool. An effective programme of badger vaccination in areas where badgers are the suspected source of TB in cattle would be expected to reduce transmission of the disease between the species.'

²⁸ Woodroffe, R., *et al.* (2006) Culling and cattle controls influence tuberculosis risk for badgers. Proc. Natl Acad. Sci. USA, 103, 14 713–14 717

²⁹ Carrington, D. (2013) Badger vaccination 'would be cheaper to implement than cull', The Guardian, 3 June, <http://www.theguardian.com/environment/2013/jun/03/badger-vaccination-cheaper-than-cull>

anomalies and in turn guide the Strategy with the aim of replicating the success achieved by the unaffected farms.

While we would advocate that trading and moving cattle from High Risk to Edge or Low Risk areas should be avoided at all costs, at the very least the isolation and testing (at severe interpretation) of post-movement stock from high risk areas should be mandatory.

Statutory depopulation of herds, a strategy used in North America³⁰, is a more appropriate method for controlling the spread of an infectious agent when the sensitivity of the individual animal test used (in this case the SICCT) is low, and can be adversely affected by other factors (such as liver fluke infestation³¹). There is clear evidence to show that there is a significantly greater chance of breakdowns in herds that have experienced previous breakdowns, suggesting that bTB may remain in affected herds that have not been depopulated even when they subsequently test clear³². The draft strategy itself states that up to 21% of cattle herds may be harboring at least one infected animal when movement restrictions are lifted. The fact that herd depopulation is rarely used even where repeated testing and individual animal removal does not clear a herd of infection, represents a significant weakness in the current strategy.

The introduction of statutory biosecurity measures to reduce the likelihood of direct or indirect contact between cattle and badgers should be considered.

Question 13: To what extent do you agree with our proposals for developing new tools?

Efforts to develop 'cage-side' tools to detect bTB infection in individual badgers, and to detect the presence of bTB in badger waste materials in the vicinity of badger setts, should be viewed with caution. Questions about the sensitivity and specificity of such tests remain, as does the question of what action might be taken in response to positive samples being obtained. Badger vaccination (currently by injection, ultimately through the use of oral baits) offers an effective, humane and publicly acceptable method of significantly reducing bTB prevalence in badger populations, and by extension reducing any risk of transfer of bTB between badgers and cattle, while at the same time avoiding the potential for perturbation. The focus of research should be on the development of practical methods of vaccinating the optimum proportion of badgers within populations to effect a decline in bTB prevalence.

The consideration of additional methods of controlling badger populations, such as sett-based culling or non-lethal methods, is of great concern. The focus must remain on disease control and not on reducing the badger population. There is no relationship between bTB prevalence in badgers and their abundance,³³ therefore reducing the number of badgers will not reduce levels of bTB within the badger population. Sett-based culling would necessitate the use of methods that are currently banned under the Protection of Badgers Act 1992 or not registered or approved as vertebrate control agents. The suggested research into potential fumigants would be at odds with the advice³⁴ given recently to the TB Eradication Programme Board in Wales, which references evidence from a number of Defra-commissioned reports, that 'fumigation is not pursued further as a badger control strategy',

³⁰ Essey, M.A. and Koller, M.A. (1994) Status of bovine tuberculosis in North America, *Veterinary Microbiology*, 40:1-2 15-22, [http://dx.doi.org/10.1016/0378-1135\(94\)90043-4](http://dx.doi.org/10.1016/0378-1135(94)90043-4)

³¹ Claridge, J. *et al.* (2012) *Fasciola hepatica* is associated with the failure to detect bovine tuberculosis in dairy cattle, *Nat. Commun.* 3:853 doi: 10.1038/ncomms1840

³² Conlan, A.J.K. *et al.* (2012) Estimating the Hidden Burden of Bovine Tuberculosis in Great Britain, *PLoS Comput Biol*, 8(10): e1002730. doi:10.1371/journal.pcbi.1002730

³³ Rogers, L.M. *et al.* (1999) The increase in badger (*Meles meles*) density at Woodchester Park, south-west England: a review of the implications for disease (*Mycobacterium bovis*) prevalence, *Mammalia* 63: 183-192.

³⁴ TB Eradication Programme, Fumigation as a badger culling technique decision paper (Ref: WI-IAPA-W-Dec-A-02 v 1.3) <http://www.bovinetb.info/docs/Fumigation-as-a-badger-culling-technique.pdf>

because of concerns over fumigant dispersal and the impacts on animal welfare. Whole sett culling also potentially contravenes the UK's commitment under Article 8 of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) to 'prohibit the use of all indiscriminate means of capture and killing and the use of all means capable of causing local disappearance of, or serious disturbance to, populations of a species [listed in Appendix III, which includes the European badger]'.³⁵ Consideration of non-lethal badger population control methods assume that badger populations are 'too high' in those areas where such measures might be considered, without providing any evidence for how this will be determined; non-lethal population control measures also have the potential to disrupt badger population structure and stability, which could itself lead to increased prevalence of infection among remaining badgers, and could constitute 'serious disturbance' under Article 8 of the Bern Convention.

The development of cattle vaccines, and the political and legal framework in which they can be used, should be given a high priority. However, as stated in the draft Strategy, a cattle vaccine, while representing an extremely useful tool, may not by itself eradicate bTB from the national herd. The Strategy should provide greater focus on improving cattle production and husbandry techniques in order to reduce infection risk and promote a shift away from selection for increasingly extreme production targets and towards higher levels of animal health and welfare.

It is our understanding that the Welsh Assembly Government has expressed enthusiasm for cattle bTB vaccine trials to be conducted in the principality³⁶. The UK government should do everything it can to encourage and facilitate such trials, which would be a prerequisite for a licence application.

Question 14: To what extent do you think that the Government, industry and other interest groups should be responsible for policy on the control of bovine TB in England?

The development of partnerships between government, the farming industry, and other stakeholder groups representing civil society (including wildlife and animal welfare groups), should be encouraged. However, it is vital that arrangements for ensuring compliance with statutory requirements, and for encouraging compliance with voluntary initiatives, are thorough and truly independent. Non-compliance or poor compliance could significantly undermine the effectiveness of any policy.

Any efforts to re-tender salvage contracts to secure a 'better deal' for bTB reactors, needs to be considered in the light of potential public concern over the introduction of meat products derived from bTB infected cattle into the human food chain. This issue received significant coverage in the media earlier this year³⁷, and whatever the true risk to public health, the potential public reaction to commercial tendering of products from infected cattle destined for human consumption, designed to maximise financial returns, must be given due consideration.

The involvement of veterinarians in private practice (or their employees) in the delivery of bTB surveillance and breakdown response raises the possibility of vested interest, if the farmers involved are also clients of the veterinary practice concerned. This is an issue that

³⁵ Convention on the Conservation of European Wildlife and Natural Habitats <http://conventions.coe.int/Treaty/en/Treaties/Html/104.htm>

³⁶ Welsh Government (2012) Cattle TB Vaccination Workshop Report, <http://wales.gov.uk/docs/drah/publications/130327cattletbvaccinationworkshopreport.pdf>

³⁷ Farming UK (2013) Meat from TB infected cattle 'being eaten widely' by consumers, 2 July, http://www.farminguk.com/news/Meat-from-TB-infected-cattle-being-eaten-widely-by-consumers_25860.html

needs careful consideration when exploring the possibility of enhancing the role of veterinary businesses, and extending the use of approved lay bTB testers acting on behalf of those businesses.

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