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Policy paper

2010 to 2015 government policy: bovine tuberculosis (bovine TB)

Updated 8 May 2015

Contents

This is a copy of a document that stated a policy of the 2010 to 2015 Conservative and Liberal Democrat coalition government. The previous URL of this page was https://www.gov.uk/government/policies/reducing-bovine-tuberculosis (https://www.gov.uk/government/policies/reducing-bovine-tuberculosis). Current policies can be found at the GOV.UK policies list (https://www.gov.uk/government/policies).

Issue

Bovine tuberculosis (TB) is an infectious disease which mainly affects cattle. It can infect many other species of mammals, though only a handful (including badgers in parts of Great Britain) can actively spread the disease.

The scale of infection and the cost make bovine TB one of the biggest challenges that the cattle farming industry faces, particularly in the west and south west of England. Elsewhere in England the infection in cattle has been virtually eliminated, although sporadic cases occur, usually linked to movements of cattle from areas where the disease is more widespread.

The risk to public health is very low these days. This is largely due to milk pasteurisation and to the early identification of cattle with TB on farms and at abattoirs.

Nevertheless, we need to eradicate bovine TB, to support the food and farming industries and to reduce the costs to both farmers and taxpayers.

Actions

Our aim is to achieve officially TB free Status for England, in line with our bovine TB Strategy for England (https://www.gov.uk/government/publications/a-strategy-for-achieving-officially-bovine-tuberculosis-free-status-for-england) and the wider UK Bovine Tuberculosis Eradication Programme (http://ec.europa.eu/food/animal/diseases/docs/adopted_2013_722_eu_bovine_tuberculosis_uk_en.pdf).

This includes:

- reducing bovine TB through controls on cattle, including testing cattle herds for bovine TB, and controlling TB in herds when it is detected
- controlling the disease in badgers
- improving biosecurity and husbandry on farms (http://www.defra.gov.uk/animal-diseases/a-z/bovine-tb/animal-keepers/)
- developing TB vaccines for cattle
- vaccinating badgers against TB
- helping other industry sectors to deal with TB in non-bovine species (http://www.defra.gov.uk/animal-diseases/a-z/bovine-tb/animal-keepers/other-species/)
- our comprehensive bovine TB research programme

Background

We published our strategy for achieving 'Officially Bovine Tuberculosis-Free' Status for England (https://www.gov.uk/government/publications/a-strategy-for-achieving-officially-bovine-tuberculosis-free-status-for-england) on 3 April 2014, following extensive consultation (https://www.gov.uk/government/consultations/strategy-for-achieving-officially-bovine-tuberculosis-free-status-for-england).

We publish monthly 'Bovine TB statistics' (https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/bovine-tb).

Bovine TB annual surveillance reports (http://www.defra.gov.uk/ahvla-en/publication/pub-survreport-tb/) are published by AHVLA.

Who we're working with

The Bovine TB Eradication Advisory Group for England (TBEAG) (https://www.gov.uk/government/policy-advisory-groups/bovine-tb-eradication-advisory-group-for-england) is an expert sub-group of the Animal Health and Welfare Board for England (AHWBE) (https://www.gov.uk/government/policy-advisory-groups/animal-health-and-welfare-board-for-england-ahwbe) which advises Defra on developing and implementing bovine TB policy. AHWBE has overall responsibility for advising ministers on England's TB strategy.

Bills and legislation

Responsibilities for bovine TB are fully devolved to administrations in England, Wales, Scotland and Northern Ireland.

The main EU regulation on bovine TB is Council Directive 64/432/EEC (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1964L0432:20071113:EN:PDF), which deals with animal health problems affecting trade inside the EU in bovine animals and swine.

Our own legislation which contains the rules about the control of bovine TB in England includes the following:

- The Tuberculosis (England) Order 2014 (http://www.legislation.gov.uk/uksi/2014/2383/contents/made)
- The Cattle Compensation (England) Order 2012 (http://www.legislation.gov.uk/uksi/2012/1379/contents/made)
- The Individual Ascertainment of Value (England) Order 2012 (http://www.legislation.gov.uk/uksi/2012/1380/contents/made)
- The Tuberculosis (Deer and Camelid) (England) Order 2014 (http://www.legislation.gov.uk/uksi/2014/2337/contents/made)
- The Tuberculosis (Deer and Camelid) Slaughter and Compensation (England) Order 2014 (http://www.legislation.gov.uk/uksi/2014/2338/contents/made)

Badgers and their setts are protected under the Protection of Badgers Act 1992 (http://www.legislation.gov.uk/ukpga/1992/51/contents).

Appendix 1: research and evidence about bovine TB

This was a supporting detail page of the main policy document.

We invest a significant amount (more than £8 million in the financial year 2013 to 2014) on a wide-ranging bovine TB research programme (http://randd.defra.gov.uk/). It includes research into:

- the development of cattle and badger vaccines
- studies into licensing of vaccines
- new bovine TB diagnostic tests
- bovine TB epidemiology, which looks at the patterns, causes, and effects of the disease
- social science, which looks at the how the public and those who have to deal with the disease view bovine TB and our controls on it
- economic analysis, which looks at the costs and benefits of disease control overall, and for particular measures

In total, we expect to spend £24.6 million between April 2010 and March 2015 on our research into the development of badger and cattle vaccines to combat bovine TB. The work is summarised in our bovine tuberculosis evidence plan (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/221077/pb13909-evidenceplan-bovine-tuberculosis.pdf).

National survey of badgers

A national survey of badger setts in England and Wales (http://www.defra.gov.uk/ahvla-en/science/bovine-tb/badger-survey-england-wales/) was conducted by the Food and Environment Research Agency (Fera) between November 2011 and March 2013. This was a follow-up to the last national survey of badgers in Great Britain, which was completed in 1997.

Results of the sett survey published in January 2014 (http://www.nature.com/srep/2014/140123/srep03809/full/srep03809.html) showed that the number of badger social groups in England had doubled since the completion of the first national survey in 1988. Results of a related study to estimate the national badger population are expected by the end of 2014.

Developing vaccines and diagnostic tests

We're investing in a major research programme to develop vaccines to combat bovine TB. From April 2010 to March 2015 the anticipated spend will be £24.7m on developing badger vaccines and cattle vaccines and diagnostic tests.

Vaccinating both cattle and badgers could be an important part of the way we control TB in the future, since it can reduce the risk of infection and transmission. A vaccine would not, however, guarantee that all vaccinated animals are fully protected, and some may still contract the disease.

Bovine TB data

Some of the data held by Defra and its agencies may be useful to researchers studying the epidemiology of bovine TB. Below are some examples of data that could be made available. For further information on how to access these data for research purposes, please contact the organisations listed.

Please note that access to data from all datasets cannot be guaranteed and confidentiality restrictions will apply to its use and dissemination. Access is also subject to the nature and complexity of the request, staff resource available and the manner in which data are to be provided. Payment may be requested to cover staff time involved with access to some of the data.

For data requests relating to the following areas, please email the Animal Health and Veterinary Laboratories Agency (AHVLA): tb.datarequests@ahvla.gsi.gov.uk:

- cattle TB testing records (from VetNet and VeBus databases)
- road traffic accident (RTA) surveys of badgers from 1976 to 1997 and 2002 to 2005
- badger Removal Operations during the period 1975 to 1998
- samples examined by the AHVLA bacteriological diagnostic laboratory (including molecular typing results)
- the 2006 Welsh Found Dead Badger Survey

For data requests relating to the following areas, please email AHVLA's Information Management and Technology team: vetsurveillance@ahvla.gsi.gov.uk

- the Cattle Tracing System (CTS) (http://www.bcms.gov.uk/) run by the British Cattle Movement Service
- the Rapid Analysis and Detection of Animal-related Risks (RADAR) information system (http://webarchive.nationalarchives.gov.uk/20120404153955/http://archive.defra.gov.uk/foodfarm/farmanimal/diseases/vetsurveillance/radar/)

For data requests relating to farming statistics (https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/structure-of-the-agricultural-industry), please email Defra's farming statistics team - farming.statistics@defra.gsi.gov.uk.

The Bovine TB Science Advisory Body

Independent advice on bovine TB-related research is provided by the Bovine TB Science Advisory Body (bTB SAB) (https://www.gov.uk/government/policy-advisory-groups/bovine-tb-science-advisory-body). This group reports to Defra's Chief Veterinary Officer and Chief Scientific Adviser through AHVLA's Veterinary and Science Advisory Team, who act as the secretariat.

Appendix 2: cattle vaccines

This was a supporting detail page of the main policy document.

Used alongside existing bovine tuberculosis (TB) control measures, vaccination could in future reduce how widespread and severe the disease is in cattle.

However, there is currently no licensed cattle vaccine available for use against bovine TB. BCG-based cattle vaccine is banned in the EU because it interferes with the tuberculin TB skin test and there is currently no validated test to differentiate infected from vaccinated animals (a 'DIVA test').

In January 2013 the EU Commissioner for Health and Consumer Policy wrote to the Secretary of State (https://www.gov.uk/government/publications/bovine-tb-eradication-programme-letter-from-the-european-commission-to-owen-paterson) setting out a tentative timeline for possible use of a TB cattle vaccine. Defra is currently working on the design of the large-scale, long-lasting field trials which would be needed to prove how effective a cattle vaccine would be.

Our bovine TB research programme includes work on the development of vaccines to combat bovine TB.

Appendix 3: reducing bovine TB through controls on cattle

This was a supporting detail page of the main policy document.

There is a range of controls in place to reduce the spread of TB between cattle. These controls form the basis of our Strategy for Achieving Officially Bovine Tuberculosis Free Status for England (https://www.gov.uk/government/publications/a-strategy-for-achieving-officially-bovine-tuberculosis-free-status-for-england).

These controls include:

- annual testing of cattle herds in the high risk and edge areas of England and background four-yearly testing of herds in the low risk area
- routine inspection of cattle carcasses at slaughterhouses for signs of TB
- compulsory TB testing of cattle 42 days old and over before they move out of annually tested herds, except for animals going to slaughter
- rapid removal of cattle which test positive for TB, together with movement restrictions and more frequent testing of the rest of the herd, to control and eliminate the infection
- a strategy for early detection of TB in herds in the edge area, where the incidence of disease is increasing
- a voluntary cattle trading scheme under which details of TB history are made available when an animal is sold, so that buyers can make informed decisions about risk
- promotion of good biosecurity practices
- tougher penalties for those who do not test their cattle on time
- improved case management of herds which have recurring or long-term TB breakdowns

Changes to cattle control measures are published through TB Information Notes (https://www.gov.uk/government/collections/bovine-tb-information-notes)

Testing for bovine TB

The basic principle of our bovine TB test and slaughter programme is to identify and remove infected cattle as early as possible, and minimise the risk of the disease being transmitted to other cattle or wildlife.

The main screening test for TB in cattle in Great Britain is the single intradermal comparative cervical tuberculin test (SICCT). This is commonly known as the tuberculin skin test, which is used throughout the world to screen cattle, other animals and people for TB. It's the internationally accepted standard for

detecting Mycobacterium bovis (M. bovis) infection in live animals.

The interferon-gamma (IFN-γ) blood test is a laboratory-based test for the diagnosis of bovine TB in cattle. It is approved in the EU for use in conjunction with the skin test in specific circumstances where it is needed to increase the diagnostic sensitivity (the probability of detecting infected animals).

More information on testing for TB in your herd (https://www.gov.uk/government/publications/testing-for-tb-in-your-herd).

Routine herd surveillance testing

Routine herd surveillance testing is carried out at the government's expense. All herds in England are required to be tested using the tuberculin skin test:

- annually in areas where the risk of disease is highest and in the edge area, and in higher-risk herds situated in the low risk area
- every 4 years, in the low risk area

More information is available about TB testing:

- information on TB testing intervals (https://www.gov.uk/government/publications/bovine-tb-testing-intervals-2014)
- find out your TB testing interval by entering your CPH number on the AHVLA website (http://ahvla.defra.gov.uk/tb-test/index.asp)
- TB information notes on changes to TB testing (https://www.gov.uk/government/collections/bovine-tb-information-notes)

Controls if evidence of TB is found in a herd

A herd's officially tuberculosis-free (OTF) status is suspended or withdrawn if evidence of TB is found in at least 1 of the slaughtered animals.

Some limited movements from restricted herds are permitted under licence to help farming businesses and protect animal welfare. More information is available in Information on managing TB in your herd (https://www.gov.uk/government/publications/what-happens-if-tb-is-identified-in-your-herd).

Pre-movement testing

All cattle 42 days old and over, which are being moved from annually tested herds, must test negative for TB in a skin test 60 days before they are moved. Some limited exceptions are laid down in the Tuberculosis (England) Order 2014 (http://www.legislation.gov.uk/uksi/2014/2383/contents/made).

Certain limited movements of cattle within officially TB free herds held in annually tested sole occupancy authorities can be made under a general licence (https://www.gov.uk/government/publications/general-licence-for-the-movement-of-cattle-within-sole-occupancy-authorities).

More information is available in the following documents:

- information on pre-movement and post-movement testing in your herd (https://www.gov.uk/government/publications/pre-movement-and-post-movement-tb-testing-of-cattle-in-great-britain)
- TB pre-movement testing statistics monitoring data for England and Wales are updated quarterly and available via our TB statistics section (https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/bovine-tb)

Compensation for cattle

Compensation is paid to owners of cattle compulsorily slaughtered for bovine TB control purposes. Details of compensation rates are available in our detailed guide on cattle compensation rates (https://www.gov.uk/guidance/compensation-for-animals-culled-to-control-animal-diseases).

Post-mortem testing

Cattle carcases are inspected by the Food Standards Agency (http://www.food.gov.uk/) for the presence of bovine TB lesions. Any cases identified in abattoirs will be traced back to the herd of origin.

Biosecurity and husbandry

Maintaining good biosecurity and husbandry practices is important in helping to reduce the risk of bovine TB transmission. Even if TB has never been found in individual herds, it is advisable to take precautionary measures against possible infection from wildlife (mainly badgers) and from cattle (purchased or hired animals and any neighbouring cattle herds).

See information on biosecurity and husbandry (https://www.gov.uk/government/publications/protecting-cattle-against-tb-infection-in-high-incidence-areas).

Appendix 4: controlling bovine tuberculosis in badgers

This was a supporting detail page of the main policy document.

Bovine TB is mainly a disease of cattle, but it can also affect other species. We know that the disease is present in badgers in parts of England and that the disease can be transmitted among cattle, among badgers, and between the 2 species.

The scientific evidence shows conclusively that badgers contribute significantly to bovine TB in cattle. This evidence comes from the randomised badger culling trial. In this trial there were positive and negative changes in the incidence of TB in cattle as a result of badger culling.

The relationship between TB in badgers and in cattle is highly complex. The following articles give more information about this relationship:

- Guardian Online article by Chief Scientist Ian Boyd and Chief Veterinary Officer Nigel Gibbens explain the science behind the badger cull (http://www.guardian.co.uk/environment/2012/oct/11/badger-cull-furore)
- conclusions from a meeting held between Professor Bob Watson and scientific experts on 4th April 2011 (http://webarchive.nationalarchives.gov.uk/20110911090544/http://archive.defra.gov.uk/foodfarm/farmanimal/diseases/atoz/tb/documents/bovinetb-scientificexperts-110404.pdf)
- Ian Boyd writes on the evidence base behind the badger cull pilots (http://tacklingbovinetb.tumblr.com/post/60169362104/ian-boyd-writes-on-the-evidence-base-behind-the-badger)

The government's approach to badger disease and badger control

Badger control pilots

We are pursuing a comprehensive strategy, including tighter cattle movement controls, vaccinations and culling.

Following two public consultations in 2010 (http://webarchive.nationalarchives.gov.uk/20120616115816/http:/archive.defra.gov.uk/corporate/consult/tb-control-measures/index.htm) and 2011 (https://www.gov.uk/government/consultations/guidance-to-natural-england-on-the-implementation-and-enforcement-of-a-badger-control-policy), we announced, in December 2011 (http://www.publications.parliament.uk/pa/cm201011/cmhansrd/cm111214/debtext/111214-0001.htm#11121472000004), that we would pilot, initially in the first year, culling in 2 areas (http://www.parliament.uk/documents/commons-vote-office/3.DEFRA-BovineTB.pdf). The purpose of the pilots was to confirm our assumptions about how effective (in terms of badger removal), humane and safe it would be to use controlled shooting as a method of removing badgers.

Natural England issued the first culling licence (http://www.naturalengland.org.uk/about_us/news/2012/170912.aspx), for West Gloucestershire, in September 2012. The second culling licence (http://www.naturalengland.org.uk/about_us/news/2012/041012.aspx), for West Somerset, was issued in October 2012. Culling began in August 2013 and lasted until November 2013.

First year of culling

An independent expert panel (https://www.gov.uk/government/policy-advisory-groups/badger-culling-pilots-independent-expert-panel) reviewed how humane, effective and safe the controlled shooting technique was in the first year of the two badger culling pilots. They published a report of their findings (https://www.gov.uk/government/publications/pilot-badger-culls-in-somerset-and-gloucestershire-report-by-the-independent-expert-panel) together with results of monitoring of the pilots by AHVLA.

We published our response to the IEP report (https://www.gov.uk/government/publications/pilot-badger-culls-in-somerset-and-gloucestershire-defra-response-to-the-report-by-the-independent-expert-panel).

Second year of culling

The first year of the pilots provided information that enabled us to plan how we proceed in controlling this wildlife reservoir of bovine TB effectively, humanely and safely in subsequent years. These improvements were put into place for the second year of culling in Gloucestershire and Somerset as part of the culls, which will be carried out annually for a minimum of four years.

The second year of badger culling started in West Gloucestershire and West Somerset in September 2014.

The results of the monitoring of the second year of culling (https://www.gov.uk/government/publications/bovine-tb-summary-of-badger-control-monitoring-during-2014) were published in December 2014. We also published the Chief Veterinary Officer's advice on outcome of year 2 of the badger culls (https://www.gov.uk/government/publications/bovine-tb-chief-veterinary-officers-advice-on-outcome-of-year-2-of-the-badger-culls).

The randomised badger culling trial

The randomised badger culling trial ran from 1998 to 2005 and was overseen by the Independent Scientific Group on Cattle TB.

The trial took place in 30 100 square kilometre areas of England, which were grouped into 10 sets of 3 areas ('triplets').

In each triplet:

- 1 area received repeated culling across all accessible land (proactive culling)
- 1 area received culling in response to bovine TB outbreaks in cattle (reactive culling)
- the third area received no culling (survey only)

Culling operations took place for between 4 and 7 years.

Results during the trial showed positive and negative changes in the incidence of bovine TB in cattle as a result of badger culling.

The Independent Group on Cattle TB published its final report on the trials, 'Bovine TB: the scientific evidence' (http://webarchive.nationalarchives.gov.uk/20110911090544/http://www.defra.gov.uk/foodfarm/farmanimal/diseases/atoz/tb/isg/report/final_report.pdf) in 2007.

More information about the trials is available on the National Archives (http://webarchive.nationalarchives.gov.uk/20081107201922/http:/defra.gov.uk/animalh/tb/culling/index.htm).

The most recent update, 'Results from the Randomised Badger Culling Trial based on data downloaded in July 2013' (http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=17993) shows that a reduction in TB incidence in cattle due to culling persists for at least 6.5 years after the last cull.

Appendix 5: badger vaccination

This was a supporting detail page of the main policy document.

Vaccinating badgers could play a role in the way we control bovine TB. It could do this by helping to reduce the spread of bovine TB in badger populations.

A vaccine would not, however, guarantee that all vaccinated animals are fully protected, and some may still contract the disease.

Injectable badger vaccine

BadgerBCG is an injectable vaccine that has been available on prescription since March 2010.

Studies have demonstrated that vaccination of badgers with BCG can significantly reduce the progression, severity and excretion of Mycobacterium bovis (the cause of bovine TB). For example, we have published reports on the safety of BCG vaccine in captive badgers (http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=10771) and the effectiveness and safety of BCG vaccine in captive badgers (http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=17918&FromSearch=Y&Publisher=1&SearchText=SE3276&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description).

We conducted a field study over 4 years in a naturally infected population of over 800 wild badgers in Gloucestershire. This found (http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=16320&FromSearch=Y&Publisher=1&SearchText=SE3250&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description) that vaccination resulted in a 74% reduction in the proportion of wild badgers testing positive to the blood test for TB. While these results indicate a clear effect of vaccination on badgers, these tests on their own can't tell us how well BadgerBCG vaccine works.

BadgerBCG has been used in a government-funded project in Gloucestershire (http://www.defra.gov.uk/ahvla-en/science/bovine-tb/bvdp/) and by others such as the National Trust (http://www.nationaltrust.org.uk/) and local Wildlife Trusts.

Badger vaccination and cage trapping training courses (https://www.gov.uk/guidance/bovine-tb-badger-vaccination-training) are provided by APHA.

Badger Edge Vaccination Scheme

The government's bovine TB strategy for England (https://www.gov.uk/government/publications/a-strategy-for-achieving-officially-bovine-tuberculosis-free-status-for-england) published in April 2014 announced new support for privately-led vaccination initiatives in the "Edge Area" of England. This aims to create vaccinated badger populations in uninfected areas.

Launched in September 2014 (http://www.parliament.uk/documents/commons-vote-office/September%202014/2%20September/2-DEFRA-BovineTB.pdf), the Badger Edge Vaccination Scheme (BEVS) (https://www.gov.uk/government/publications/badger-edge-vaccination-scheme-general-information) offers long term financial and other support to privately led vaccination campaigns in the Edge Area.

Applications to BEVS closed on 27 February 2015. Decisions on Grant awards have now been taken and offers made to campaigns starting in 2015.

The offer of support to successful applicants includes free training, free loan of cage traps, free supply of vaccine and match funding for the remaining costs of running a successful vaccination campaign.

All grant offers are compliant with Article 26 of Commission Regulation (EU) No. 702/2014 on State Aids which concerns aid for the costs of the prevention, control and eradication of animal diseases and plant pests and aid to make good the damage caused by animal diseases and plant pests.

For more information about BEVS please contact bevs@defra.gsi.gov.uk.

Oral badger vaccine

An oral badger vaccine may be a more practical, cheaper option but is still at the research stage.

Work which is underway includes:

- formulation and bait development
- efficacy and safety studies
- field deployment studies
- preparing and submitting a licensing dossier for assessment by the Veterinary Medicines Directorate

Diagnostic tests for badgers

We're working to develop practical, sensitive and specific diagnostic tests for badgers. This would allow us to better understand the scale of badger infection in terms of geographical area.

Such tests could mean that future interventions are targeted at individual badgers or setts, rather than the wider population. They could also help us judge how effective vaccination might be in a specific area.

Research is concentrating on:

- non-invasive tests to identify infected badgers, including the development of non-invasive blood sampling devices
- tests to identify setts and areas where infected badgers are resident, such as tests to detect bovine TB bacteria in environmental (soil, latrine) samples

Further information

More information and guidance about our research into vaccines is available:

- Defra's bovine TB research programme (https://www.gov.uk/government/policies/reducing-bovine-tuberculosis/supporting-pages/research-and-evidence-about-bovine-tb) including work on the development of vaccines to combat bovine TB.
- Work by the Animal Health and Veterinary Laboratories Agency (http://www.defra.gov.uk/ahvla-en/disease-control/bovine-tb/)