



## DEBATE PACK

Number CDP 2019/0225, 21 October 2019

# TB in cattle and badgers

This pack has been prepared ahead of the debate to be held in Westminster Hall on Wednesday 23 October 2019 at 9.30am on Government policy on TB in cattle and badgers. The debate will be opened by Ruth George MP.

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The House of Commons Library prepares a briefing in hard copy and/or online for most non-legislative debates in the Chamber and Westminster Hall other than half-hour debates. Debate Packs are produced quickly after the announcement of parliamentary business. They are intended to provide a summary or overview of the issue being debated and identify relevant briefings and useful documents, including press and parliamentary material. More detailed briefing can be prepared for Members on request to the Library.

# 1. Background

The Government strategy for achieving [Officially Bovine Tuberculosis Free status for England by 2038](#) was published in 2014. This includes badger culling, which is controversial, but also a focus on farm biosecurity, cattle testing and movement restrictions for TB positive herds. It also focuses on developing better TB testing in cattle and badgers, and more effective vaccination for both. Badger vaccination is also carried out in some areas.

The Commons Library overview of the policy and history is provided in [Badger Culling in England](#) (last updated April 2018). The Library briefing on [Badger Culling: devolved administrations](#) (last updated December 2017) may also be of interest, as each devolved administration is taking a different approach to controlling TB in badgers. The Library briefing on [Bovine Tuberculosis Statistics: Great Britain](#) provides statistics to 2018.

The Government reports annually on the progress of the badger cull. The latest report, [Summary of Badger Control Operations for 2018](#), is available on the Gov.UK website and sets out the numbers culled in each area last year. It also includes a statement from Natural England's Chief Scientific Officer on the effectiveness of the cull. [Full Fact reports](#) that between 2013 and 2018 nearly 67,000 badgers were culled. A [PQ from October 2019](#) sets out the costs of the Badger Cull for the last 5 years (also see section 4 below).

## 1.1 Badger Cull 2019

A [government press release](#) announced on 11 September 2019 that: "Natural England has licensed and authorised 11 new badger control areas to begin operations in 2019. It has also authorised the licence holders to resume operations in 29 existing badger control areas in 2019". The press release also sets out the minimum and maximum numbers that must be culled in each area. [According to Full Fact](#) "the licenses allow for the culling of a maximum of 63,000 badgers across the 40 control areas. The minimum target is 37,000."

## 1.2 Godfray review

A Government commissioned [review of the bovine TB strategy](#) for England, carried out by Sir Charles Godfray, was published in November 2018. The Government press release highlighted the following findings:

- industry must take greater responsibility for on-farm controls, biosecurity and safe trading practices to stop the disease spreading
- more can be done to help farmers make purchasing decisions reflecting the risks of cattle being infected
- evidence shows that badgers do transmit bovine TB to cattle and contribute to the persistence of the disease

- disease reduction would benefit from greater flexibility and agility in adapting bovine TB control measures as new research findings emerge
- A new independent body on disease control would be helpful to take over disease control operations from APHA, Natural England and local authorities (this recommendation will be considered by the government in light of the wider Dame Glenys Stacey review into farm inspections).<sup>1</sup>

The [Wildlife and Countryside Link response](#) to the review publication welcomed the conclusion that there should be an increased emphasis on efforts to reduce transmission in cattle, and testing [alternatives to badger culling](#):

Far greater emphasis should be placed on control measures aimed at reducing TB transmission among cattle. We strongly support this conclusion. We agree that TB control efforts have focused disproportionately on transmission from wildlife, and support the Godfray team's proposals to improve upon the current systems for detecting and removing infected cattle, which have proven inadequate. We also strongly advocate mandatory risk-based trading of cattle, an approach encouraged in the Godfray Report. However, we argue that improved cattle controls should target all areas, not just those that have been subject to wildlife interventions. The Godfray report also calls upon government to conduct a large-scale field trial to evaluate non-lethal alternatives to badger culling.

The Godfray review has been [referenced by Ministers](#) in responses to questions on future badger culling policy. More recently, on 20 June 2019, a Government [written statement](#) on Bovine TB said that it would be publishing a response the Godfray Review in due course:

Professor Sir Charles Godfray's independent review of the strategy highlighted a number of potential further actions while noting the difficulties associated with eradicating bovine TB. The review's conclusions include improving surveillance in cattle herds, the need to continue to address the disease in badgers and for more research and development (R&D). We continue to assess the review's findings and plan to publish a full response in due course.<sup>2</sup>

### 1.3 Animal Welfare Concerns

On 9 September 2019 it was widely reported in the media that Prof Ranald Munro, who was chair of the Independent Expert Panel on Badger cull pilots, had written to Natural England raising concerns over the number of culled badgers that may not be killed immediately, and the reduced level of supervision of culls by Natural England. A BBC article, [Vet says badger culls caused 'immense pain'](#), stated:

Speaking ahead of the expected announcement of new culling areas for 2019 later this week, Prof Munro estimates that 40,000 badgers have been culled so far which according to the expert group's figures equates to thousands of them dying slowly. "The numbers are huge, they really are. If you look at the likelihood of

<sup>1</sup> DEFRA press release [Review of government's bovine TB strategy published](#) 13 November 2018

<sup>2</sup> [HCWS1637 Bovine TB](#)

not dying within five minutes of being shot, you are looking at 3,000 badgers having suffered immense pain at a minimum. It could be as high as 9,000. There is a huge issue of suffering in these badgers." Prof Munro's remarks come as he and 19 other vets, scientists and animal welfare campaigners wrote to Natural England, the body that oversees the culls.

A freedom of information request by the group has shown that as the number of cull areas has increased over the years, the environment watchdog's monitoring staff have been spread ever thinner. In 2014, 20% of culls were supervised by Natural England staff. In 2018, it was able to monitor only 0.4%<sup>3</sup>

In view of the lack of a response to the Godfray Review to date, the campaign organisation [Wild Justice](#) has recently written [a letter to Defra](#) raising some concerns about this and several aspects of the badger cull, including the question raised by Professor Munro, and requested a response by 11 October.

## 1.4 Badger Vaccination

The Zoological Society of London, which supports vaccination rather than culling published [Eradicating TB from cattle and badgers – a review of evidence](#) in September 2018, which provides an overview of the various approaches taken in the different administrations (which includes vaccination) and sets out ZSL's views on their effectiveness.

The Government funds a badger vaccination programme in some of the TB edge areas. The [Badger Vaccination information sheet](#) from DEFRA sets out the reduction on prevalence that is seen in regularly vaccinated badger populations. Details of Defra funding is [available here](#).

A Written Answer from January 2019 set out ongoing work to develop an oral vaccine for badgers:

[Bovine Tuberculosis: Vaccination](#)

### **Asked by: Sturdy, Julian**

To ask the Secretary of State for Environment, Food and Rural Affairs, what plans his Department has to expand the badger vaccination programme.

### **Answering member: George Eustice**

**| Department: Department for Environment, Food and Rural Affairs**

Landowners and private groups across England can apply to Natural England for a licence to vaccinate badgers against TB. Animal & Plant Health Agency (APHA) provides training for those who wish undertake such vaccination and Defra provides financial support for projects within the Edge Area under the Badger Edge Vaccination Scheme (BEVS).

BEVS, relaunched in 2018 following a global vaccine shortage, provides matched funding and training for groups that want to take part. Three groups were successful with their applications in 2018. On 13 September 2018 we re-opened the scheme and asked for expressions of interest from those wishing to apply to

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<sup>3</sup> BBC News Online [Vet says badger culls caused 'immense pain'](#) 9 September 2019

vaccinate from 2019. The application process closes on 25 January 2019.

A long-standing research programme at APHA to identify an oral vaccine and a palatable bait in which to deliver it is also ongoing. An efficacy study is currently in progress, with results due later this year.

We are currently considering the report of the TB Strategy review, conducted by a team led by Professor Sir Charles Godfray, the scope of which includes badger vaccination. A Government response to the review will be published later this year.

**HC Deb 15 January 2019 | PQ 206347**

## 2. Approaches in Wales

The Welsh Government set out its strategy for tackling bovine TB in its 2017 publication [Wales Bovine TB Eradication Programme](#). This set out a regional approach encompassing surveillance and control methods, including annual cattle herd testing, and measures to improve biosecurity on farms.

Wales is divided into two High-Risk Areas, a Low-Risk Area, and two Intermediate areas. After several years of successfully reducing cattle TB without widespread badger management, Wales recently started a programme of localised selective badger culling on chronically affected farms. However, in 2017 only five badgers were culled.

The Welsh Government continues to rule out a widespread badger culling programme. Lesley Griffith AM, Welsh Minister for Environment, Energy and Rural Affairs told the Welsh Assembly on 17 July 2019 that:

I certainly don't blame farmers. There is no blame culture coming from me. What I've always said, and what they agree with, is that we work in partnership. So, we work in partnership to address many of the problems that the agricultural sector are facing, and TB is one of them where I think we have to work in partnership. [...] What I do rule out is a badger cull, because the science, for me, is not there. Nothing I have seen since I've been in this post for three years makes me think that a badger cull in the style that they do in England would be beneficial here in Wales.

[\[Lesley Griffiths Plenary speech 17 July 2019, Welsh Assembly\]](#)

The Farmers Union for Wales continues to support a badger culling programme in Wales. In a [farming press article on 18 September 2018](#) the Union said that:

In contrast to England, farmers in Wales have seen just 5 badgers culled since the start of the 'Refreshed' TB Eradication programme almost a year ago. The costs of this meagre cull programme have been exorbitant and it is now time for the Welsh TB programme to place the same emphasis on dealing with wildlife as it does cattle.

In light of the English results, and the fact that Welsh Government effectively has a plan on the shelf which is, in many ways, 'ready to go', it is now time to reinstate the original plan for the IAA in order to accelerate the Welsh bovine TB programme.

The Government ran a [vaccination of badgers programme from 2012 - 2015](#) (ended a year early due to worldwide vaccine shortages) and currently provides [grant funding](#) for private vaccination schemes. The Government said in October 2018 that it has not yet made a decision on extending the Government trial. [Wildlife Trust Wales](#) supports vaccination which it considers to be no more expensive than culling.

### 3. Approaches in Northern Ireland

The [Department of Agriculture, Environment and Rural Affairs' \(DAERA\)](#) states that it has a rigorous TB eradication programme including mandatory annual testing of all cattle herds (with reactors removed for immediate slaughter), together with “a strand to address the wildlife factor”. It notes however that “as the badger is a protected species, any direct interventions in the badger population here would be subject to the agreement of the Environment Minister and the issue of appropriate licences”. Funding has been allocated to conduct TB and wildlife research to provide an evidence base for cattle to cattle spread of TB as well as the wildlife issue. This will be used to guide future eradication strategies.

A unique to NI approach is being designed although lessons from the research experiences of other regions are being addressed. These include work that is ongoing in the south of Ireland and England to develop a viable oral vaccine and cost-effective means of vaccine deployment and also the developments in England to produce a viable cattle vaccine. DAERA is also “monitoring closely the progress in England and Wales on their proposals for badger control in areas with high and persistent levels of bovine TB”.

In late 2017/early 2018 DAERA consulted on proposals for a new strategic approach to the eradication of bovine tuberculosis (bTB). The proposals were developed following consideration of, and in response to, the report '[Bovine Tuberculosis Eradication Strategy for Northern Ireland](#)', published by the TB Strategic Partnership Group (TBSPG), in December 2016. The consultation closed on 1 February 2018. The responses are being considered by DAERA with the input of experts. One of DAERA's proposals was for badger culling in a “central zone, and complementary actions to mitigate perturbation or reinfection as appropriate”.

The [BBC reported on 18 September 2019](#) that officials would put to a future Minister two options, including culling and a “test and vaccinate or remove” (TVR) approach. DAERA has run a five year TVR research programme ([test and vaccinate or remove](#)) which concluded in 2018. This captured and tested badgers in the Banbridge County Down area with infected badgers removed and the others vaccinated and released. Reporting on the findings is expected from late 2019 onwards for consideration by officials. A wider badger vaccination programme would follow either option.

[Ulster Wildlife](#) opposes a blanket cull and considers that culling healthy badgers should not be part of an eradication programme.

[Farm leaders](#) have however called for a rethink of culling as an option in both Wales and Northern Ireland following outcomes of culls in England.

## 4. News items

Farmers' Weekly

### **Farm leaders urge TB rethink after badger cull 'success'**

18 October 2019

<https://www.fwi.co.uk/livestock/health-welfare/livestock-diseases/bovine-tb/farm-leaders-urge-tb-rethink-after-badger-cull-success>

Guardian

### **Badger cull linked to fall in bovine TB in two areas, study suggests**

11 October 2019

<https://www.theguardian.com/environment/2019/oct/11/badger-cull-linked-to-fall-in-bovine-tb-in-two-areas-study-suggests>

New Scientist

### **Real time badger tracking shows culling could increase spread of TB**

9 October 2019

<https://www.newscientist.com/article/2219063-real-time-badger-tracking-shows-culling-could-increase-spread-of-tb/#ixzz630E5q6ru>

BBC News Online

### **Badger culls risk increased spread of TB to cattle, study finds**

9 October 2019

<https://www.bbc.co.uk/news/science-environment-49938943>

BBC News Online

### **Bovine TB: 'No compensation cuts before badger cull plan'**

27 September 2019

<https://www.bbc.co.uk/news/uk-northern-ireland-49839175>

BBC News Online

### **Vet says badger culls caused 'immense pain'**

9 September 2019

<https://www.bbc.co.uk/news/science-environment-49611457>

## 5. Press releases

### British Veterinary Association

#### BVA responds to Downs Study on badger culling

11 October 2019

We have responded to a study by Downs *et al*/assessing the effects from four years of badger culling in England on the incidence of bovine tuberculosis (bTB) in cattle.

[The study](#), published in *Nature Scientific Reports*, investigated the effect of culling in the first three licensed badger cull areas – Gloucestershire, Somerset and Dorset – using data from 2013 to 2017.

Gloucestershire and Somerset saw reductions in bTB incidence rates in cull areas relative to comparison areas of 66 per cent and 37 per cent respectively after four years. In Dorset, there was no change in incidence rates in cull areas relative to comparison areas after two years, but incidence dropped by 55 per cent in the same period in the 2km buffer zone around the edge of the cull area. Matched comparison areas were similar but not identical.

James Russell, BVA Junior Vice President said:

These findings are encouraging and offer further evidence that badger culling can result in significant reductions in the number of new cases of TB in cattle. However, they come with the caveat that the data only relates to the first three cull areas, and the variability within these alone makes it too early to draw firm conclusions that culling will reduce incidence significantly in all 40 areas where it is now taking place.

BVA's expert working group is currently considering all aspects of disease control looking at cattle testing, removal of reactors, compensation and control in other farmed animals as well as the culling and vaccination of badgers. The group will consider this additional evidence as we develop our new policy on bTB.

We continue to support a comprehensive and evidence-based approach to tackling bTB, including the use of badger culling where there is a demonstrated need and where it is done safely, humanely and effectively as part of a comprehensive strategy. The best way of halting the spread of this devastating disease is enhancing our understanding of bTB and applying that evidence to the eradication process.

### Zoological Society of London

#### Badger behaviour inside the cull zone

8th October 2019

ZSL study shows survivors of culls cover 61% greater areas, potentially increasing risk of transmission to cattle.

A study led by researchers from ZSL and Imperial College London has found that culling drives badgers to roam 61% further afield – helping to explain why the practice, intended to reduce bovine TB transmission, can sometimes exacerbate the problem instead.

Published in the *Journal of Applied Ecology*, [the paper reveals](#) that, after a population was culled, surviving badgers covered 61% more land each month than they had before the cull began, leading researchers to conclude that badgers explore new areas as individuals are removed from neighbouring groups and territories open up.

Badgers were also found to visit 45% more fields each month, and the odds of a badger visiting neighbouring territories each night increased 20-fold – potentially increasing the risk of TB transmission both to cattle and to other badgers. These changes were witnessed as soon as culling began, meaning even badgers that were killed may have first spread the infection over wider areas while management was being implemented.

Badgers however spent less time outside of their setts in culled areas – spending on average 91 minutes less per night out and about. ZSL scientists believe this could be linked to reduced competition and increased food availability as badgers are removed from the population.

The research group from ZSL's Institute of Zoology, and Imperial's MRC Centre for Global Infectious Disease Analysis, studied 67 badgers across 20 cattle farms in areas with and without farmer-led culling in Cornwall, collecting GPS-collar data between 2013 and 2017.

Lead author and ZSL-Imperial PhD researcher, Cally Ham explained:

Badgers spend a large proportion of the night foraging for food above-ground, and as culling reduces the size of the population, competition for food will also be reduced. We believe this accounts for the reduced activity levels, as well as bold individuals becoming obvious targets for culling and being quickly removed from the population.

Because culling partly relies on shooting badgers moving around at night, the fact that badgers were active for fewer hours per night could actually be undermining culling efforts to further control badger numbers.

Professor Rosie Woodroffe at ZSL's Institute of Zoology, said:

As badger-to-cattle transmission is likely to occur through contamination of their shared environment, and TB bacteria can remain viable for long periods of time in the environment, the effects of increases in ranging behaviour could create a source of infection for several months – long after the individual badger has been culled. In contrast, studies have shown that vaccination prompts no changes in badgers' ranging behaviour.

Since the UK Government implemented the culling policy in 2011, ZSL scientists have been working to understand whether badger vaccination – a non-lethal alternative to culling - could be used to reduce the infection of TB in the UK's badger population, and so help control TB in cattle.

Ham, C. Donnelly, C. A., Astley, K. L., Jackson, S.Y.B., Woodroffe, R. (2019) Effect of culling on individual behaviour *Meles meles* behaviour:

Potential implications for bovine tuberculosis transmission. *Journal of Applied Ecology*. DOI:[10.1111/1365-2664.13512](https://doi.org/10.1111/1365-2664.13512)

## DEFRA

### 2019 Badger control licences announced

#### 11 September 2019

Natural England has today published licences for areas that will undertake badger control operations within the High Risk and Edge areas of England this autumn.

This includes the reauthorisation of licences for 29 existing areas alongside licences for 11 additional areas.

This operational publication is a continuation of [the long term strategy to tackle the animal disease Bovine TB](#) which was published in April 2014.

Farming Minister George Eustice said:

Bovine TB remains the greatest animal health threat to the UK, costing taxpayers over £100 million every year as well as causing devastation and distress for hard-working farmers and rural communities.

There is no single measure that will provide an answer to beating this disease. That is why we have always been committed to a multi-pronged approach including proactive badger control as well as other tools such as tighter cattle controls, improved biosecurity and badger vaccination.

Our strategy in combatting the disease now has an opportunity to look at different methods as part of our response to the Godfray Review. We will fully respond to this review in the near future.

All applications received were carefully assessed by Natural England to ensure that each cull company has suitable arrangements and plans in place to carry out an operation that is safe, effective and humane.

## DEFRA

### Review of government's bovine TB strategy published

#### 13 November 2018

A [review of the government's 25 Year Bovine TB \(bTB\) Strategy](#), led by Sir Charles Godfray, has been published today (Tuesday 13 November).

The report, which was [commissioned by Environment Secretary Michael Gove in February](#), aims to inform future strategies around the government's goal of eradicating the disease by 2038.

The report is now with Ministers who will consider its recommendations before publishing a response, setting out the next steps for the bTB Strategy.

Farming Minister George Eustice said:

We welcome this review of the Government's 25-year Bovine TB strategy and I extend my thanks to Sir Charles Godfray and his team for their hard work in producing the report.

As a Government we are committed to eradicating bTB and have always been clear that there is no single measure for tackling it. That's why we have pursued a range of interventions, including cattle movement controls, vaccinations and controlled culling in certain areas.

Sir Charles' report is an important contribution that will inform next steps in the strategy to achieve officially TB free status for England by 2038.

Sir Charles Godfray, population biologist and Fellow of the Royal Society said:

The Review Panel are acutely aware of the burden this disease places on the welfare and well-being of farmers and their families, and the distress many people feel about badger culling.

There are no easy answers to reducing disease levels and what is required is new drive and a concerted and concentrated effort by all sectors involved.

The findings from the report include:

- industry must take greater responsibility for on-farm controls, biosecurity and safe trading practices to stop the disease spreading
- more can be done to help farmers make purchasing decisions reflecting the risks of cattle being infected
- evidence shows that badgers do transmit bovine TB to cattle and contribute to the persistence of the disease
- disease reduction would benefit from greater flexibility and agility in adapting bovine TB control measures as new research findings emerge
- A new independent body on disease control would be helpful to take over disease control operations from APHA, Natural England and local authorities (this recommendation will be considered by the government in light of the wider Dame Glenys Stacey review into farm inspections).

## 6. Parliamentary material

### Written statements

#### [Bovine TB](#)

Today I am updating the House on the implementation of the Government's strategy to eradicate bovine TB in England by 2038.

Bovine TB remains one of the greatest animal health threats to the UK, causing significant hardship and distress for hard-working farmers and rural communities. Government and industry are therefore continuing to take strong action to eradicate the disease.

Professor Sir Charles Godfray's independent review of the strategy highlighted a number of potential further actions while noting the difficulties associated with eradicating bovine TB. The review's conclusions include improving surveillance in cattle herds, the need to continue to address the disease in badgers and for more research and development (R&D). We continue to assess the review's findings and plan to publish a full response in due course. I am however today providing further information on reinforcing TB testing in the High Risk Area, announcing plans to invite further applications to our badger vaccination grant scheme and confirming the licensing and authorisation by Natural England of three supplementary badger control areas for 2019. Further information is available on [gov.uk](http://gov.uk).

In May 2018 we announced that from 2020 we would introduce six-monthly cattle surveillance testing, with less frequent testing for lower risk herds, in the High Risk Area (HRA) of England to enable earlier detection and eradication of disease, and to prevent it spreading to new areas. Having considered the likely demands that roll out across the whole of the HRA in one step would place on cattle herd owners and the veterinary businesses that carry out the vast majority of the testing we are now working on a phased introduction from 2020. We will provide further details to affected cattle keepers and veterinary businesses in due course.

Vaccination of badgers against TB using BCG can provide a level of protection and can play a role in limiting TB spread to healthy badger populations. Therefore, a third round of applications for the 'Badger Edge Vaccination Scheme' (BEVS 2) is now open, with further grant funding available to private groups wishing to carry out badger vaccination in the Edge Area of England. Groups will receive at least 50% funding towards their eligible costs. This builds on the four initial four-year projects we have funded.

Alongside this we are investing in social and economic research to understand farmer behaviours and drivers of: cattle purchase and movement; attitudes to risk-based trading; attitudes to biosecurity,

wildlife control and vaccination; and analysis of pros and cons of compensation versus insurance schemes.

In May 2019 fieldwork closed on a self-completion postal survey. Over 1250 responses were received from herd owners across England. This will provide national representative estimates of cattle farmers' attitudes and behaviours and towards biosecurity, cattle purchasing, and what influences of on-farm decision making. We expect to publish headline findings in July 2019.

In July 2019 fieldwork will commence on a telephone survey of 1500 HRA and Edge Area farms which have suffered a breakdown. The survey will estimate the monetary costs involved in a bovine TB breakdown which herd owners are not compensated for. Including increased staffing and housing costs, and loss of productivity. This will allow accurate analysis of the financial impact of the disease to industry and individual farms. The project will report early 2020.

We are determined to eradicate this devastating disease as quickly as possible.

#### **HC Deb 20 June 2019 | HCWS1637**

#### [Bovine TB](#)

Today I am updating the House on the implementation of the Government's strategy to eradicate bovine TB in England by 2038.

Bovine TB remains one of the greatest animal health threats to the UK, causing devastation and distress for hard-working farmers and rural communities. We are therefore continuing to take strong action to eradicate the disease.

Professor Sir Charles Godfray's independent review of the strategy highlighted a number of potential further actions while noting the level of challenge associated with eradicating bovine TB. We continue to consider the review's advice in detail and will publish a formal response in due course.

In the meantime, I am today announcing plans to enhance biosecurity on farms and when trading, introducing earned recognition into our testing regime and inviting further applications to our badger vaccination grant scheme. I am also reporting on the outcome of 2018 badger control operations. All of the cull areas satisfied the level of badger removal that was required by their licence conditions.

Our joint industry-government biosecurity progress report has been published today. As part of our commitment to improving this important element of our wider TB strategy we will be investing £25,000 to improve the TB Hub website which is hosted by the Agriculture and Horticulture Development Board and which provides farmers and others with practical biosecurity advice. Furthermore, early next year we will carry out our first ever TB farm practices survey which will help us to get a better understanding of the extent to which

biosecurity and other farming practices currently contribute to our efforts to control bovine TB.

Since January 2018 many herds in the Edge Area of England have been subject to six-monthly surveillance testing. From May 2019 we will give recognition to herds that have managed to stay clear of bovine TB restrictions in the last six years and herds that have achieved accreditation based on standards laid down by the Cattle Health Certification Standards body. We hope allowing these lower risk herds to revert to annual testing will incentivise others to take steps to reduce their TB risks.

There is broad scientific consensus that badgers are implicated in the spread of TB to cattle. This year, effective, licensed badger removal operations were completed by local farmers and landowners in 11 new areas and 19 existing areas. Alongside our robust cattle movement and testing regime, this will allow us to achieve and maintain long term reductions in the level of TB in cattle across the South West and Midlands, where the disease is widespread. The pace at which farmers and landowners came together to deliver an effective badger removal operation in Cumbria, part of the TB Low Risk Area, alongside enhanced cattle measures, has given us the best opportunity to stamp out the disease in this hotspot.

Badger BCG vaccination can provide a level of protection against disease and has a role to play in limiting TB spread to healthy badger populations. Therefore, a second round of applications for the 'Badger Edge Vaccination Scheme' is now open, with grant funding available to private groups wishing to carry out badger vaccination in the Edge Area of England. Groups will receive at least 50% funding towards their eligible costs. This builds on the three initial four-year projects we have funded, which successfully carried out badger vaccination in 2018.

We remain determined to implement all available measures necessary to eradicate this devastating disease as quickly as possible.

**HC Deb 18 December 2018 | HCWS1195**

PQs

[Bovine Tuberculosis: Vaccination](#)

**Asked by: Offord, Dr Matthew**

To ask the Secretary of State for Environment, Food and Rural Affairs, what assessment her Department has made of the potential merits of vaccinating all cattle against the TB virus.

**Answering member: George Eustice | Department: Department for Environment, Food and Rural Affairs**

Vaccination of cattle against the bovine TB bacterium is a part of our long-term eradication strategy. There are merits to cattle vaccination as

it has the potential to reduce the prevalence, incidence and spread of TB. As with badgers, however, BCG (*M. bovis* - bacille Calmette-Guérin) vaccination is not completely effective, and has no impact on already infected cattle. It also sensitises cattle to the tuberculin skin test used to identify animals infected with TB, so we need to licence an effective test that differentiates between the disease and the vaccine before deployment would be possible.

**HC Deb 07 October 2019 | PQ 292889**

[Bovine Tuberculosis: Disease Control](#)

**Asked by: Hayman, Sue**

To ask the Secretary of State for Environment, Food and Rural Affairs, how much her Department spent from the public purse on the badger cull in each of the last five years.

**Answering member: George Eustice | Department: Department for Environment, Food and Rural Affairs**

Bovine TB is one of the greatest animal health threats to the UK and the disease costs the public over £100million a year, with the cost to the farming industry around £50m a year. Badger control costs to Government in each of the last five years are as follows (to the nearest thousand pounds):

	2014	2015	2016	2017	2018
Licensing and compliance monitoring	£1,036,000	£1,003,000	£1,284,000	£1,289,000	£1,312,000
Humaneness monitoring, including post mortems	£1,515,000	£154,000	£392,000	£506,000	£352,000
Efficacy monitoring	£17,000	£0	£0	£0	£0
Advice and assessments	£294,000	£460,000	£646,000	£728,000	£410,000
Other costs, including equipment	£205,000	£162,000	£53,000	£49,000	£1,000
<b>Total</b>	<b>£3,067,000</b>	<b>£1,779,000</b>	<b>£2,375,000</b>	<b>£2,572,000</b>	<b>£2,075,000</b>

Badger control policing costs to Government in each of the last five years are as follows (to the nearest thousand pounds):

2014	2015	2016	2017	2018
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Policing	£1,392,000	£1,809,000	£3,030,000	£4,047,000	£3,237,000
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Further information can be found on [gov.uk](http://gov.uk) at the following link:  
[www.gov.uk/government/publications/bovine-tb-government-badger-control-costs](http://www.gov.uk/government/publications/bovine-tb-government-badger-control-costs) .

**HC Deb 04 October 2019 | PQ 290861**

[Bovine Tuberculosis: Disease Control](#)

**Asked by: Cunningham, Mr Jim**

To ask the Secretary of State for Environment, Food and Rural Affairs, what recent assessment he has made of the effectiveness of the badger culling programme.

**Answering member: George Eustice | Department: Department for Environment, Food and Rural Affairs**

During 2018, badger culling operations in 32 areas of England were all successful in meeting their targets. According to Natural England's chief scientist, the results show that industry-led badger culling continues to deliver the level of effectiveness required by the policy to be confident of achieving disease control benefits.

Assessments of the effectiveness of badger culling are published annually on [gov.uk](http://gov.uk) at the following link:  
<https://www.gov.uk/government/collections/bovine-tb-controlling-the-risk-of-bovine-tb-from-badgers>

**HC Deb 31 July 2019 | PQ 280129**

[Bovine Tuberculosis: Disease Control](#)

**Asked by: Baker, Mr Steve**

To ask the Secretary of State for Environment, Food and Rural Affairs, what steps he is taking to help farmers tackle the spread of bovine TB.

**Answering member: Mr Robert Goodwill | Department: Department for Environment, Food and Rural Affairs**

We are pursuing a wide range of interventions as part of the Government's strategy to eradicate bovine TB in England by 2038, including strengthening cattle testing and movement controls, licensing badger control, and promoting biosecurity on farms to help farmers prevent the spread of Bovine TB. Sir Charles Godfray's independent review (published in November 2018) is an important contribution that will inform next steps in the strategy.

In my Written Ministerial Statement of 20 June 2019, I announced plans to reinforce TB testing in the High Risk Area, invited applications for a third round of the Badger Edge Vaccination Scheme and confirmed the

licensing and authorisation by Natural England of three supplementary badger control areas for 2019.

Our partnerships with other organisations have enabled the development of toolkits that support farmers to understand their role in the prevention and eradication of the disease, including the TB Hub, the iBTB website and the TB Advisory Service.

**HC Deb 18 July 2019 | PQ 277178**

[Bovine Tuberculosis: Disease Control](#)

**Asked by: Shannon, Jim**

To ask the Secretary of State for Environment, Food and Rural Affairs, what recent assessment he has made of the effect of culling badgers on TB rates in cattle.

**Answering member: Mr Robert Goodwill | Department: Department for Environment, Food and Rural Affairs**

Rigorous statistical analysis, which adjusts for differences related to the risk of TB in cattle, has been carried out to measure any association between badger culling and cattle TB incidence in comparison to areas where badger culling has not taken place. This analysis covers data from the first two years of culling in Areas 1 and 2 (Gloucestershire and Somerset). It is available at the following link:

<https://onlinelibrary.wiley.com/doi/epdf/10.1002/ece3.3254>

An updated statistical analysis of this data has been submitted to a peer-review journal.

The raw data, can be found on the following link:

<https://www.gov.uk/government/publications/bovine-tb-incidence-of-tb-in-cattle-in-licenced-badger-control-areas-in-2013-to-2017>

**HC Deb 09 July 2019 | PQ 271460**

[Badger Culling Programme](#)

**Stephen Lloyd**

What recent assessment his Department has made of the effectiveness of the badger culling programme.

**The Secretary of State for Environment, Food and Rural Affairs (Michael Gove)**

During 2018, badger control operations in 32 areas of England were all successful in meeting their targets. According to Natural England's chief scientist, the results show that

“industry-led badger control continues to deliver the level of effectiveness required by the policy to be confident of achieving disease control benefits”.

Assessments of the effectiveness of badger control are published annually on gov.uk.

**Stephen Lloyd**

Given the extended roll-out, it is estimated that about 150,000 badgers will have been culled by the end of 2020. This animal, which has been around since the ice age, faces extinction in various parts of the country. What would the Secretary of State say about investing the money in a national badger vaccination programme? To quote the Wildlife Trusts, should not the Government be investing in “medicine, not marksmen”?

**Michael Gove**

The hon. Gentleman makes an important point. When it comes to dealing with bovine TB—a terrible disease that damages the lives of cattle and the livelihoods of farmers—we need to consider all steps that are appropriate. Culling and vaccination are both tools in our armoury.

**HC Deb 20 June 2019 | Vol 662 cc337-8**

[Bovine Tuberculosis: Disease Control](#)

**Asked by: Robertson, Mr Laurence**

To ask the Secretary of State for Environment, Food and Rural Affairs, what plans he has for a strategy to manage bovine TB in the countryside without using badger culling; and if he will make a statement.

**Answering member: Mr Robert Goodwill | Department: Department for Environment, Food and Rural Affairs**

A successful strategy for eradicating bovine TB involves addressing all routes of spread of infection, including cattle-to-cattle, cattle-to-badger, badger-to-badger and badger-to-cattle.

As part of the Government’s 25 year bovine TB eradication strategy, we are taking strong action to eradicate the disease and protect the future of our dairy and beef industries, with emphasis on detecting infection early in cattle herds, containing and removing it as quickly as possible, and tighter biosecurity. We also enable farmers and landowners to carry out badger culling and/or badger vaccination, subject to strict licensing criteria by Natural England.

Sir Charles Godfray’s review of the strategy is an important contribution that will inform future approaches around our goal of eradicating the disease in England by 2038.

**HC Deb 09 May 2019 | PQ 249821**

[Bovine Tuberculosis: Disease Control](#)

**Asked by: Drew, Dr David**

To ask the Secretary of State for Environment, Food and Rural Affairs, how many of the holdings that were interferon-gamma tested in 2018 in the High Risk Bovine TB control area in England were tested on

account of (a) being located in an areas that had completed two years of successful badger population control, (b) there being clear evidence that repeated skin testing has failed to resolve a TB breakdown and (c) the APHA veterinary investigation concluding that the most likely transmission route for the affected herd was contact with infected cattle and that measures are in place to prevent further spread of disease from that source.

**Answering member: David Rutley | Department: Department for Environment, Food and Rural Affairs**

The Animal and Plant Health Agency (APHA) record and report surveillance information for interferon gamma testing in the Bovine TB High Risk Area of England.

The number of holdings that were interferon-gamma tested in 2018 in the Bovine TB High Risk Area in England are shown in the table below.

The 'other reasons' row includes all other reasons for testing - for which the data cannot be separated - except serial tests which are only used in very specific cases when anomalous reactions such as interference with the test is suspected.

	<b>Holdings Samples</b>	
Number of holdings located in badger control area (a)	140	31,400
Evidence that repeated skin testing failed to resolve a TB Breakdown (b)	102	44,572
Other reasons, including but not exclusively APHA investigation concluding most likely transmission was contact with infected cattle (c)	34	6,083

**HC Deb 01 March 2019 | PQ 224023**

[Bovine Tuberculosis: Vaccination](#)

**Asked by: Sturdy, Julian**

To ask the Secretary of State for Environment, Food and Rural Affairs, what plans his Department has to expand the badger vaccination programme.

**Answering member: George Eustice | Department: Department for Environment, Food and Rural Affairs**

Landowners and private groups across England can apply to Natural England for a licence to vaccinate badgers against TB. Animal & Plant Health Agency (APHA) provides training for those who wish undertake such vaccination and Defra provides financial support for projects within the Edge Area under the Badger Edge Vaccination Scheme (BEVS).

BEVS, relaunched in 2018 following a global vaccine shortage, provides matched funding and training for groups that want to take part. Three

groups were successful with their applications in 2018. On 13 September 2018 we re-opened the scheme and asked for expressions of interest from those wishing to apply to vaccinate from 2019. The application process closes on 25 January 2019.

A long-standing research programme at APHA to identify an oral vaccine and a palatable bait in which to deliver it is also ongoing. An efficacy study is currently in progress, with results due later this year.

We are currently considering the report of the TB Strategy review, conducted by a team led by Professor Sir Charles Godfray, the scope of which includes badger vaccination. A Government response to the review will be published later this year.

**HC Deb 15 January 2019 | PQ 206347**

[Bovine Tuberculosis: Vaccination](#)

**Asked by: Drew, Dr David**

To ask the Secretary of State for Environment, Food and Rural Affairs, what steps his Department is taking to examine whether the use of the BCG vaccine on badgers has reduced the incidence of cattle-borne bovine TB.

**Answering member: George Eustice | Department: Department for Environment, Food and Rural Affairs**

Defra has funded research to model the impact of vaccination of badgers with BCG on the incidence of tuberculosis in cattle, and the Animal and Plant Health Agency has published an analysis of the effect of badger vaccination on the incidence of tuberculosis in cattle in the Badger Vaccine Deployment Project area.

Professor Sir Charles Godfray's TB Strategy Review report, published in 2018, considered the role of badger vaccination and the Government is currently considering its response.

For further information, please use the following links:

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0039250>

[www.gov.uk/government/publications/bovine-tb-analysis-of-the-effect-of-badger-vaccination-on-incidence-of-tb-in-cattle](http://www.gov.uk/government/publications/bovine-tb-analysis-of-the-effect-of-badger-vaccination-on-incidence-of-tb-in-cattle)

[www.gov.uk/government/publications/a-strategy-for-achieving-bovine-tuberculosis-free-status-for-england-2018-review](http://www.gov.uk/government/publications/a-strategy-for-achieving-bovine-tuberculosis-free-status-for-england-2018-review)

**HC Deb 11 January 2019 | PQ 205812**

## 7. Useful links and further reading

DEFRA *A strategy for achieving Officially Bovine Tuberculosis Free status for England* 2014

<https://www.gov.uk/government/publications/a-strategy-for-achieving-officially-bovine-tuberculosis-free-status-for-england>

DEFRA *Bovine TB: controlling the risk of bovine TB from badgers*  
Information on what the government is doing to control the risk of bovine tuberculosis (TB) from badgers

<https://www.gov.uk/government/collections/bovine-tb-controlling-the-risk-of-bovine-tb-from-badgers>

DEFRA *A strategy for achieving Bovine Tuberculosis Free Status for England: 2018 review* October 2018

<https://www.gov.uk/government/publications/a-strategy-for-achieving-bovine-tuberculosis-free-status-for-england-2018-review>

Wildlife and Countryside Link *Bovine Tuberculosis Strategy Review Response from Wildlife and Countryside Link to the Godfray Report* April 2019

<https://aaf1a18515da0e792f78-c27fdabe952dfc357fe25ebf5c8897ee.ssl.cf5.rackcdn.com/1720/Link+BovineTB+-+Godfray+response.pdf?v=1565601259000>

Wild Justice *Wild Justice seeks answers from Defra over Badger cull* 28 September 2019

<https://wildjustice.org.uk/general/wild-justice-seeks-answers-from-defra-over-badger-cull/>

Zoological Society of London *Eradicating TB from cattle and badgers – a review of evidence* September 2018

[https://www.zsl.org/sites/default/files/media/2018-09/ZSL\\_Eradicating\\_TB\\_Report\\_final\\_24Sep18.pdf](https://www.zsl.org/sites/default/files/media/2018-09/ZSL_Eradicating_TB_Report_final_24Sep18.pdf)

DEFRA/APHA Badger vaccination information sheet

<https://www.tbhub.co.uk/wp-content/uploads/2018/03/AR-factsheet-badger-vaccination.pdf>

Badger Trust

<https://www.badgertrust.org.uk/>

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