

Climate Change, Environment and
Rural Affairs Committee
**Report on the Welsh
Government's Refreshed TB
Eradication programme**

May 2017



National Assembly for Wales
Climate Change, Environment and Rural Affairs Committee

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Climate Change, Environment and Rural Affairs Committee

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The Committee was established on 28 June 2016 to examine legislation and hold the Welsh Government to account by scrutinising expenditure, administration and policy matters, encompassing (but not restricted to): climate change; energy; natural resources management; planning; animal welfare and agriculture.

Current Committee membership:



Siân Gwenllian AM
Plaid Cymru
Arfon



Vikki Howells AM
Welsh Labour
Cynon Valley



Huw Irranca-Davies AM
Welsh Labour
Ogmore



David Melding AM
Welsh Conservative
South Wales Central



Jenny Rathbone AM
Welsh Labour
Cardiff Central



Simon Thomas AM
Plaid Cymru
Mid and West Wales



Jayne Bryant AM
Welsh Labour
Newport West

The following Member was also a member of the committee during this inquiry.



Mark Reckless AM (Chair)
UKIP Wales
South Wales East

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Recommendation 6. The Committee supports the Welsh Government’s proposal to encourage Informed Purchasing, also known as Risk Based Trading. A system of Risk Based Trading should be taken forward voluntarily in the first instance with the industry and livestock markets. This should be kept under review and, if necessary, introduced on a mandatory basis. Page 24

Recommendation 7. The Welsh Government’s proposals to introduce targeted badger removal in cases of chronic breakdown herds must be scientifically monitored and reviewed and either adapted or stopped if it is shown that it does not prevent the transmission of Bovine TB from wildlife to cattle. Any measures taken on a trial basis must include hard borders and adequate safeguards against the risk of any possible perturbation of the wildlife population..... Page 35

Recommendation 8. The Welsh Government should report to the Committee 12 months after the programme of targeted badger removal begins to present its findings. We expect the Welsh Government to make its data publicly available in order to ensure transparency in their decision-making and review processes.

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Recommendation 9. The Welsh Government and Defra should ensure that the guidance which is in place to facilitate cross border liaison is robust, particularly in relation to the exercising of wildlife controls, including badger removal and culling. This guidance must be kept under review by the Welsh Government and Defra.

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Recommendation 10. The Welsh Government should pay farmers a reasonable compensation sum for cattle slaughtered as part of the TB eradication programme. This sum should be kept under review, in consultation with stakeholders.

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Recommendation 12. The Welsh Government must seek urgent assurances from the UK Government that the Bovine TB status of the UK will not affect continuing access to the EU Single Market.

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01. Terms of reference and methodology

Introduction

1. The Climate Change, Environment and Rural Affairs Committee of the National Assembly for Wales was established in June 2016. Due to its significant impact on animal welfare, farmer welfare and farm business viability, tackling bovine TB (bovine tuberculosis) was identified by members of the Committee as a priority for the agriculture industry in Wales.
2. Following the publication of the Welsh Government's consultation document 'A Refreshed TB Eradication Strategy', the Committee decided to undertake a short inquiry within its first term to look at the efficacy of past approaches and consider the future direction of Welsh Government policy.

Terms of reference

3. This inquiry sought to understand the scientific evidence and wider issues around addressing bovine TB. The Committee agreed the following terms of reference for the inquiry:
 - To assess the evidence behind the control and eradication methods set out in the Welsh Government's refreshed bovine TB eradication programme, through a comparison with approaches outside Wales.
 - To assess whether sufficient monitoring and evaluation arrangements are in place to ensure the effectiveness and value for money of the programme can be demonstrated in the future.

Approach

4. The Committee heard oral evidence from the following witnesses:
 - Professor Rosie Woodroffe, Institute of Zoology;
 - Dr Gareth Enticott, Cardiff University;
 - Dr Neil Paton, Wales Branch President of the British Veterinary Association;
 - Dr Paul Livingstone, former TB Eradication and Research Manager, New Zealand;
 - Dr Nick Fenwick and Dr Hazel Wright, Farmers' Union of Wales;
 - Stephen James and Peter Howells, National Farmers' Union Cymru;
 - James Byrne and Lizzie Wilberforce, Wildlife Trusts Wales;
 - Dr Malla Hovi, Animal and Plant Health Agency;
 - Lesley Griffiths AM, Cabinet Secretary for Environment and Rural Affairs, Welsh Government; and
 - Professor Christianne Glossop, the Chief Veterinary Officer for Wales.
5. In January 2017, a Committee delegation visited Ireland and met Michael Creed TD, Minister for Agriculture, Food and the Marine, Martin Blake, Ireland's Chief Veterinary Officer and officials.

02. The international evidence base

This chapter will explore practices for addressing bovine TB that have been employed across the UK and abroad, and outline the results of these practices.

6. Bovine TB (bovine tuberculosis) is an infectious and chronic disease caused by *Mycobacterium bovis* (*M. bovis*) which usually affects the lungs and lymph nodes of cattle. In most cases, infected cattle are able to transmit the disease before they show signs of being unwell, which may be many months after they are infected. Controlling TB therefore depends on detecting and eliminating infected cattle as early as possible. While cattle and badgers are the principle hosts of the disease in the UK, camelids, deer, goats and domestic animals are also susceptible.

7. The European Commission's 2014 report¹ on bovine TB occurrence shows a mixed picture across Europe, with Scotland declared officially bovine TB free in September 2009. In accordance with Article 8 of Directive 64/432/EEC, Member States are required to provide the Commission with details of the occurrence of bovine tuberculosis by 31 May each year. The 2017 UK TB Eradication Plan has been submitted to the European Commission, as required by EU Directive 77/391.²

England

8. In 2014 Defra published 'A Strategy for Achieving Officially Bovine Tuberculosis Free Status for England'.³ This sets a target of 2038 for England to have Officially TB-Free (OTF) status, with an interim target for north and east England by 2025. A zoned approach is being taken, with three types of area: High Risk, Low Risk and an Edge Area that is a buffer zone between low and high areas. Wales borders three High Risk areas (Shropshire, Herefordshire and Gloucestershire) and one Edge Area (Cheshire). A range of measures are being deployed in all areas, with a number of additional measures in specific risk areas, including badger culling pilots in High Risk areas.

9. During its inquiry, the Committee heard from Dr Malla Hovi, Head of the Animal and Plant Health Agency's (APHA) Bovine TB Evidence Team. Dr Hovi spoke to the Committee about what Defra considers to be successful progress since 2014, particularly in relation to the Low Risk area that covers over half of the land area of England and approximately 43 per cent of all English cattle herds.

10. Given the cattle incidence and prevalence in the Low Risk area, Dr Hovi explained that it is Defra's intention to submit an application to the Commission this summer for OTF status for this area. Dr Hovi explained that Defra had been learning from Scotland's successful experience in applying for OTF status; for example mirroring standards and practices such as post-movement testing and four-yearly surveillance testing. Dr Hovi outlined that in the Edge Areas that contain approximately 7 per cent of English herds, tightening of the cattle testing regime has seen six-monthly testing introduced in some of the High Risk parts of the Edge area. In her evidence she also reflected on England's experience with introducing a regional approach:

“In terms of zoning the country, there was enormous opposition initially from the cattle industry, and there was a very strong feeling that everybody wanted a level playing field. We just had to go back and say, ‘In disease control, you

¹ https://ec.europa.eu/food/sites/food/files/animals/docs/la_bovine_final_report_2014.pdf

² <http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:31977L0391>

³ www.gov.uk/government/publications/a-strategy-for-achieving-officially-bovine-tuberculosis-free-status-for-england

can't have a level playing field' ... High Risk is High Risk and you have to contain and mitigate against that and low risk, you want to protect those farmers ... So, people do change their attitudes ... we, as the veterinary advisers, need to give advice that is sound from a disease control point of view and then try and sell it to all and sundry.”⁴

11. On 30 August 2016 Defra announced seven new culling areas in Cornwall, Devon, Dorset, Gloucestershire and Herefordshire. These are in addition to the existing areas in Gloucestershire, Somerset and Dorset. Culling in the new areas will be carried out over four years between 1 June and 31 January each year. In relation to this announcement, the Minister for Agriculture, Fisheries and Food, George Eustice MP, said:

“The veterinary advice and the experience of other countries is clear—we will not be able to eradicate this disease unless we also tackle the reservoir of the disease in the badger population as well as cattle.”⁵

12. Also in relation to the statement, the UK's Chief Veterinary Officer, Nigel Gibbens, said:

“Proactive badger control is currently the best available option and the licensing of further areas is necessary to realise disease control benefits at regional rather than at local levels.”⁶

13. Since 2013, badger culling has been conducted under licence in areas of high incidence of TB in cattle. Dr Hovi explained that the licences are issued by Natural England to cull companies; as such, culling in England is industry-led. She explained that hard boundaries for the cull area are considered in the licensing process so as to mitigate the perturbation effect. This refers to a cull resulting in increases in the proportion of TB infected badgers due to disruption of their social behaviour, with each surviving badger being more infectious as it is more likely to have TB. She said:

“At the moment, the policy is that anywhere where there is badger-related TB, if we have evidence of badger-related TB and where prevalence is very high in cattle, and anywhere in the high-risk area, badger culling will be licensed as long as the other licensing conditions – hard borders, biosecurity levels, no overdue testing among herds, access to adequate amount of land in the cull area et cetera ... are met.”⁷

The Randomised Badger Culling Trial (RBCT) in England: Krebs Report

14. In 1996 Lord Krebs was asked by the UK Government to review the body of scientific knowledge concerning bovine TB. He published his report⁸ in December 1997, concluding that, whilst badgers were a significant source of infection in cattle, due to a lack of evidence, it was not possible to quantify the level at which badgers were responsible. He recommended the gathering of data through a Randomised Badger Culling Trial (RBCT) to compare the proactive culling of badgers, reactive culling following the identification of TB in cattle, and no culling. Other recommendations in the report included the need for measures to separate cattle and badgers to be undertaken by

⁴ CCERA, 8 December 2016, para 420

⁵ www.gov.uk/government/news/further-measures-to-eradicate-bovine-tb

⁶ *ibid*

⁷ CCERA, 8 December 2016, para 395

⁸ www.bovinetb.info/docs/krebs.pdf

farmers, along with the development of a cattle vaccine. Lord Krebs also stated that such a study would allow government to carry out a cost-benefit analysis of killing badgers to control bovine TB in cattle.

The Independent Scientific Group on Cattle TB

15. In response to the Krebs report, the RBCT was established in 1998, with an Independent Scientific Group (ISG) chaired by Professor John Bourne. The RBCT investigated the impact of culling 10,979 badgers. It provided its final report 'Bovine TB: The Scientific Evidence' in June 2007, concluding the following:

“First, while badgers are clearly a source of cattle TB, careful evaluation of our own and others’ data indicates that badger culling can make no meaningful contribution to cattle TB control in Britain. Indeed, some policies under consideration are likely to make matters worse rather than better. Second, weaknesses in cattle testing regimes mean that cattle themselves contribute significantly to the persistence and spread of disease in all areas where TB occurs, and in some parts of Britain are likely to be the main source of infection. Scientific findings indicate that the rising incidence of disease can be reversed, and geographical spread contained, by the rigid application of cattle-based control measures alone.”⁹

Sir David King’s Report

16. Following the publication of these two reports (the RBCT and the ISG), the UK Government’s Chief Scientific Adviser Sir David King published a report on bovine TB in badgers and cattle in July 2007.¹⁰ Its findings contradicted the ISG report, stating that, in the short term, the removal of badgers was considered to be the best option to reduce the reservoir of infection in wildlife, and it should occur in addition to cattle controls, with alternative or additional means such as vaccination to be considered in the longer term.

Response to Sir David King’s Report

17. In response to Sir David King’s report, Professor John Bourne and six other former members of the ISG, which disbanded in June 2007, stated:

“ISG 3: We believe that a key reason for these differing conclusions is that King et al. (2007) were constrained within their terms of reference, which prevented them from fully evaluating policy options ... Unfortunately, the complex relationship between badger abundance and cattle TB risks, as revealed by our work, means that ‘economic [and] practical issues’... are absolutely critical in determining whether culling would reduce or increase the incidence of cattle TB. By excluding consideration of such issues from Sir David King’s remit, Ministers severely hampered his ability to inform policy development.

⁹

http://webarchive.nationalarchives.gov.uk/20090330154646/www.defra.gov.uk/animalh/tb/isg/pdf/final_report.pdf

¹⁰

<http://collections.europarchive.org/tna/20081027092120/http://defra.gov.uk/animalh/tb/pdf/badgersreport-king.pdf>

ISG 5: Given these concerns, we are not persuaded by the arguments in King et al.'s (2007) report and stand by our published recommendations concerning the control of cattle TB in Britain.”¹¹

Defra's decision making

18. The 2011 Defra document “The Government’s policy on Bovine TB and badger control in England”¹² explains the government’s decision making following the results of the RBCT. It highlighted that ongoing monitoring since the end of the RBCT showed that the positive effect of culling on herd breakdowns was maintained for at least six years after culling stopped and that the negative effect on confirmed herd breakdowns on surrounding land disappeared relatively quickly - within 12-18 months after culling stopped. In 2016 Defra published a value for money assessment of the current badger control policy in England, which found that:

“The total quantified benefits are estimated at £2.59m (range between £0.69m and £4.16m) per area over four years in the central case, based on the impact of badger control as observed in the RBCT...In the central case the benefits are expected to be greater than the costs by around £0.56m per area, but with considerable uncertainty.”¹³

Republic of Ireland

19. There has been a national bovine TB eradication scheme in the Republic of Ireland since 1954. Initially a voluntary scheme, it became compulsory in 1957. Despite the ongoing eradication programme, Ireland is still not free of bovine TB. Areas of high disease incidence include Wicklow, Wexford and Westmeath. An article in the Irish Farmers Journal (27 October 2016) reported that figures between quarters three of 2015 and 2016 show a six per cent increase in the number of reactors to bovine TB.¹⁴

20. Current Government of Ireland policy from the Department of Agriculture, Food and the Marine (DAFM) is set out in the 2016-2018 TB eradication programme.¹⁵ This states that the current programme is effective and, whilst it may be revised in light of on-going scientific developments and research, it is capable of reaching its target to eradicate the disease by 2030.

21. The badger control measures within Ireland’s programme involve:

- the capture, vaccination (BCG injection) and release of badgers where population control measures have been operated and disease levels in sympatric badgers and cattle have reduced (removal had been conducted for a minimum of three years); and

¹¹ collections.europarchive.org/tna/20081027092120/http://defra.gov.uk/animalh/tb/isg/pdf/isg-responsetosirdking.pdf

¹² www.gov.uk/government/uploads/system/uploads/attachment_data/file/69463/pb13691-bovinetb-policy-statement.pdf

¹³ www.gov.uk/government/uploads/system/uploads/attachment_data/file/548748/badger-control-policy-value-for-money-160824.pdf

¹⁴ www.farmersjournal.ie/no-recent-progress-on-tb-232501

¹⁵

www.agriculture.gov.ie/animalhealthwelfare/diseasecontrol/bovinetberadicationandbrucellosismonitoringscheme/diseaseeradicationtb/2016-2018eradicationprogrammeformbovinetb-ireland/

- oral vaccination in areas that have never been subjected to cull and where removal had been conducted for a minimum of three years (if this is not that case, vaccination with BCG injection will continue).

22. Field trials have been in place since 2013 and are due to report in 2018. The Kilkenny Vaccine Trial, for example, has involved trapping, vaccinating, marking and monitoring via recapture, to look at badger population estimates and the efficacy of trapping. An article in the Farmers' Union Journal (1 December 2016) reports that, due to the lack of vaccine, there will be no national vaccination programme for badgers until 2018 at the latest.¹⁶

23. In relation to its badger culling strategy that has been in place for over a decade, the Bovine TB Eradication Programme document states:

“Ireland believes that the badger culling strategy, which is aimed at addressing a major source of the disease, has been a key factor in bringing about the substantial reduction in the incidence of the disease in cattle since 2008.”¹⁷

24. Capturing is undertaken only in areas where serious outbreaks of bovine TB have been identified in cattle herds and where an epidemiological investigation by the Department's Veterinary Inspectorate finds that badgers are the likely source of infection. Badgers are initially captured under licence, obtained from the National Parks and Wildlife Service, using a specifically designed “stopped-body restraint” (snare), by trained Farm Relief Service contractors. They are then monitored and supervised by DAFM staff before they are shot under licence.

25. A response by Defra to a Freedom of Information request in 2014¹⁸ regarding its analysis of the badger control policy in Ireland, states that the link between the observed decline of TB in cattle in Ireland and the effectiveness of culling has been demonstrated.

26. The Government of Ireland Minister for Agriculture, Food and the Marine highlighted to Committee members the peer-reviewed study conducted in County Laois¹⁹ that looked at using a targeted badger removal programme (reactive culling). This examined the impact of badger removal activities on the dynamics of badger populations and the effects of removal on levels of bovine TB in cattle herds. This study found no evidence of perturbation (termed ‘badger social disruption’ in the paper) and concluded that targeted badger removal had a beneficial impact on the bovine TB risk in cattle.

Northern Ireland

27. On 15 December 2016 the TB Strategic Partnership Group launched the Bovine TB Eradication Strategy for Northern Ireland. The document states:

¹⁶ www.farmersjournal.ie/departments-plans-to-replace-badger-culling-with-vaccination-programme-239739

¹⁷

www.agriculture.gov.ie/animalhealthwelfare/diseasecontrol/bovinetberadicationandbrucellosismonitoringscheme/wildlifepolicybadgers/

¹⁸

www.gov.uk/government/uploads/system/uploads/attachment_data/file/302216/RFI6387_badger_culling_in_Ireland.pdf

¹⁹ Olea-Popelka, F.J. et al. (2009) *Targeted badger removal and the subsequent risk of bovine tuberculosis in cattle herds in county Laois, Ireland. Preventative Veterinary Medicine*. Vol. 88, pp. 178-184.

“This Strategy is intended to set us on a decreasing trajectory - and over the next 3 or 4 decades see the disease finally eradicated from NI.”²⁰

28. The stated aim of the strategy is “to eliminate bovine TB in cattle and contribute to the health of the badger population”. A new governance structure is proposed that includes:

- a Northern Ireland-level oversight body of experts, the TB Eradication Partnership (TBEP), to work with Government in developing strategic direction;
- a small number of Regional Eradication Partnerships (REPs); and
- ‘responsive’ local Disease Response Teams (DRTs).

29. The TBEP will formally review the Eradication Strategy every five years as a minimum, and make recommendations to the relevant Minister.

30. In relation to wildlife, and specifically badgers, the strategy recommends the widespread vaccination of badgers using oral bait once developed and available. The strategic removal of badgers is also proposed using badger intervention areas. The strategy states:

“We recommend that a badger control policy should be implemented to reduce the overall level of infection in the badger population ... The intervention should include the culling of badgers in areas of high levels of bTB in cattle and, in order to mitigate the risks associated with the perturbation effect, the vaccination of badgers, combined with culling of test positive badgers in a surrounding area.”²¹

31. The badger intervention area comprises a core zone surrounded by an outer buffer zone. The size of the core zone is determined by the local disease situation, topography and wildlife ecology. The total intervention area is to be as large as possible; this is stated as being more than 100 sq.km. The intervention areas must take account of hard boundaries, such as major rivers, lakes, mountains or major roads. Where these do not exist, a buffer zone of up to 1,500 metres around the edge of the core zone area should be identified.

New Zealand

32. In light of dairy and deer farmers’ concerns over possums and other wildlife being responsible for the spread of bovine TB, New Zealand has had a compulsory, national bovine TB eradication campaign operating in cattle herds since 1970, and in deer herds since 1990. A new accelerated National Pest Management Plan (TB plan) was introduced in May 2016 with the aim of achieving total eradication of bovine TB within 40 years. The New Zealand Government’s belief that this is possible is based on previous work in “proof of concept”²² areas where eradication has been achieved. The plan’s targets are - to eradicate TB from cattle and deer herds by 2026, wild possums by 2040 and to achieve biological eradication by 2055.

33. The risk assessments used to determine which herds require testing take into account location (risk from wildlife), history (residual risk of TB infraction within a herd) and movement (the number, source and type of movements into the herd).

²⁰ www.daera-ni.gov.uk/sites/default/files/publications/daera/bovine-tuberculosis-eradication-strategy.pdf

²¹ Ibid, pp 49

²² [National Bovine TB Plan Review, New Zealand](#)

34. The approach to pest control is based on three factors – risk to herds (number of possums and presence of TB in wildlife), time (areas that will take significant time to eradicate and areas that will be relatively quick to eradicate) and infection rate (areas that are TB infection hotspots).

35. This new approach involves a national eradication strategy rather than the previous approach of being split into zones (infected herd suppression, free area protection and eradication). Within the national approach, areas of similar habitat and disease patterns will be grouped into management areas and share an action plan.

36. Dr Livingstone, the former TB Eradication and Research Manager for New Zealand’s Animal Health Board, told the Committee that in the 1970s New Zealand had begun to control possums and, as a result, had seen a dramatic drop in TB infection in cattle. He stated that around 90 per cent of newly infected herds were due to wildlife (possums and some ferrets). He said:

“Getting TB out of farm herds in New Zealand is relatively easy. By testing, slaughter and ancillary tests such as the gamma interferon test, we have a sensitivity of somewhere around 93 or 95 per cent. So with repeat testing, we quite quickly get TB out of infected herds. The problem that occurs is that you’ve got the reinfection from TB in wild animals, and we have TB in possums.”²³

37. In relation to the wildlife controls of possums, he explained that large-scale poisoning was underway and that has resulted in a reduction in the overall population:

“We’ve taken them down to very low densities, which prevents TB from cycling within the population that’s left, and therefore the disease drops out ... perturbation is not a problem. The density is too low for possums to perturbate.”²⁴

38. In terms of facing public opposition to methods for wildlife control, Dr Livingstone explained that the possum was a non-native species and reducing their numbers was generally viewed positively. He said:

“So, we’ve introduced possums, introduced rats, introduced stoats, introduced ferrets, and these animals are all preying on our native birds. So, as a consequence, native bird populations are dropping down, and native insects are dropping down, because they’re being eaten by these animals. So, anything we do that destroys possums also destroys rats and there’s secondary poisoning of stoats. So, we cut out that predator group and our native bird population increases. So, there’s a conservation benefit that we achieve from the TB control programme, as well as killing TB possums.”²⁵

²³ CCERA, 8 December 2016, para 22

²⁴ CCERA, 8 December 2016, para 45

²⁵ CCERA, 8 December 2016, para 42

03. The Welsh Government's refreshed approach

39. The Welsh Government published its consultation on 'A Refreshed TB Eradication Programme'²⁶ in October 2016. A summary of responses was published on 10 April 2017.²⁷

40. A key tenet of the Welsh Government's approach to eradicating bovine TB is a move to a regionalised approach, with the aim of addressing the different drivers of disease in areas categorised as high, intermediate and low TB areas. This approach aims to mitigate the spread of the disease between cattle and includes measures relating to wildlife controls and compensation.

41. Unlike England, Ireland and New Zealand, the Welsh Government has not set a timetable for national TB eradication, or for eradication in any of the three (high, medium and low) areas.

Our view

The Committee recognises the significant impact bovine TB has had on dairy farmers and beef producers in Wales - not just in financial terms but more widely on the farming community.

Since reaching a peak in new herd incidences in 2008/09, there has been a general downward trend.²⁸ The Welsh Government spent £26,413,000 tackling the disease in 2015/16, which included monies from the European Union. This is an expensive and complicated problem for Welsh farmers and, although the Welsh Government has been praised for reducing the incidence of bovine TB infections, there is much to do before TB-free status can be achieved.

Central to this inquiry has been the Committee's exploration of the international evidence base for tackling bovine TB, to examine measures that have been implemented and their impact, and consider what Wales can learn from such developments. In addition, the Committee spoke to a wide range of stakeholders about practices in the UK, Ireland and internationally.

Having considered the evidence and the approaches taken in other countries, the Committee welcomes the refreshed approach proposed by the Welsh Government. The approach introduces a regionalised framework and is supported by scientific evidence and a veterinary risk assessment. The proposals include:

- a regionalised approach to TB eradication;
- surveillance testing of cattle herds;
- a wide range of cattle control measures such as pre-movement testing;
- movement restrictions on infected herds;
- Risk Based Trading;
- slaughtering infected animals;
- addressing the wildlife reservoir through the removal of infected badgers under certain circumstances; and

²⁶ <https://consultations.gov.wales/consultations/refreshed-tb-eradication-programme>

²⁷ <https://consultations.gov.wales/consultations/refreshed-tb-eradication-programme>

²⁸ Defra National Statistics, December 2016

- badger vaccination.

The Committee believes that taking a regionalised approach is an appropriate way to deal with a disease that has had such a devastating impact on rural communities and the agricultural sector in Wales. The Committee believes the Welsh Government should introduce and publish targets for the eradication of bovine TB in Wales.

In the following chapters of this report, the Committee sets out in more detail its view on some of the key issues relating to bovine TB.

Recommendation 1. The Welsh Government should set a national target date for Wales to be officially TB free and provide clarity on the process for achieving this.

Recommendation 2. The Welsh Government should set interim targets for the eradication of the disease in each of the three TB regions – high, medium and low.

04. Cattle-to-cattle transmission

In this chapter we consider the ways in which the Welsh Government can reduce bovine TB via cattle-to-cattle transmission. The Committee heard from a variety of stakeholders including: academic researchers who have studied this topic; farming industry representatives and those representing wildlife conservation.

42. The Committee heard evidence identifying cattle as the principle hosts of bovine TB, with the British Veterinary Association describing a 50 per cent rate of cattle-to-cattle transmission.

43. In its consultation document, the Welsh Government proposed surveillance and control measures to tackle the way in which bovine TB spreads, within and between herds. They are:

- altering cattle controls and movements to make sure they are sufficient to prevent disease entering the area and to eliminate a low level of infection where it exists;
- early identification of cattle through testing; and
- removing infected cattle to prevent the spread of infection within the herd and other herds.

44. The Welsh Government identifies the primary means of TB infection in the ‘intermediate’ and ‘high risk’ areas as arising from cattle movement, particularly bought-in cattle. Their proposals for dealing with this include:

- improving biosecurity;
- reducing compensation for a chronic herd breakdown, which involves movements of cattle with differing disease status between units in the same herd;
- tightening permissions for Exempt Finishing Units; and
- supporting the Informed Purchasing project to enable livestock markets to display TB information on the cattle being sold.²⁹

45. To support the Informed Purchasing project, the Welsh Government has looked at how risk-based trading (RBT) supported the eradication of bovine TB from Australia. It intends, in the longer term, to introduce a similar system in Wales in collaboration with the industry. Dr Enticott explained that whilst Risk Based Trading was voluntary in New Zealand, it was created by farmers to incentivise buy-in and reward good practice and it was self-enforced.³⁰

46. In November 2016 the Cabinet Secretary launched the Cattle Health Certification Standards (CHeCS)³¹ jointly with England. CHeCS principal objectives are to promote improvements in cattle health and welfare, and provide standards and certification for cattle health schemes. The scheme has been extended to cover bovine TB and will provide a status based on added biosecurity measures and the number of years since the last herd breakdown.

²⁹ A Refreshed Approach to TB Eradication

³⁰ CCERA, 10 November 2016, para 58

³¹ www.checs.co.uk/

Herd size

47. The Committee sought to establish to what extent the size of the herd can influence the measures taken to control TB infection and spread.

48. Professor Woodroffe cited herd size as a risk factor in the spread of TB, saying that the increasing trend towards larger herds exacerbates TB risk. She said:

“I’m a TB badger ecologist, but one of the main risk factors for TB in cattle is herd size. So, an individual cow in a large herd has a higher risk of getting TB than an individual cow in a small herd. It’s not just that there are more of them so the herd is more likely to get TB; it’s that individual cattle have a higher risk in large herds ... in trying to combat this disease, it’s like swimming upstream, because the trend within the industry is fewer larger herds and yet the TB risk goes up with herd size.”³²

49. Lizzie Wilberforce from Wildlife Trust Wales (WTW) also argued that herd size influences infection:

“I think one of the difficulties is that cattle control measures have been in place for a long time, but the industry has evolved a lot, so some of the risk factors, like herd size, have changed a lot. Herd sizes have got larger, and the larger the herds get, the harder it is to eradicate the disease from the herd, as well.”³³

50. Dr Paton, the Wales Branch President of the British Veterinary Association (BVA), argued that herd management was more important than herd size:

“It really does depend on the management of those animals. You can manage large herds effectively to control TB, it’s just a little bit more difficult to do and needs a bit more thinking about. So, it’s not their size per se that’s the problem, but it’s the way the animals are managed within that herd.”³⁴

51. Dr Livingstone, former TB Eradication and Research Manager for New Zealand’s Animal Health Board, agreed that herd size contributed to the spread of TB but said that restrictions on size would not be possible:

“With regard to the size of cattle herds, yes, the larger the herd size, the more difficult it is to get it out of them ... So, yes, larger herds are more difficult to get the TB out of than smaller herds, but we can still achieve that through frequent testing. First of all, you can’t restrict a farmer’s herd size. The farmer is there to make money out of his production and, therefore, the herd size is very much dependent on what they can afford. So, we don’t restrict anything around herd size, but we do require that, if you’ve an infected herd, you are under quarantine, and if you live in an area where we have TB wildlife, then, in fact,

³² CCERA, 10 November 2016, para 20

³³ CCERA, 8 December 2016, para 310

³⁴ CCERA, 10 November 2016, para 316

you're also placed under a movement restriction, meaning you have to have pre-movement testing to move from those areas.”³⁵

52. Professor Woodroffe explained that the main risk factor for TB in cattle is herd size, with an individual cow in a large herd having a higher risk of getting TB than an individual cow in a small herd, and that the increasing trend towards larger herds exacerbates TB risk.

53. Dr Hovi from Defra said that herd management was as important as size. She also argued that restricting herd size would be too much interference in the industry. She said:

“There has been a huge amount of risk analysis carried out about TB and various different aspects, and it must be said that the herd size always comes out on the top.”³⁶

“So, it's not their size per se that's the problem, but it's the way the animals are managed within that herd ... [recommending a limit on herd size] would be interfering with the industry too much, and we of course know that, for example, on average, herd size in Scotland is the greatest of all the devolved authorities in GB, and they are disease free. So, large herd size does not prevent you from eradicating TB. We don't see it as an impediment to that. We just need to do the right things. It's slightly harder with large herds.”³⁷

Testing

54. In light of the important role of cattle testing within the Welsh Government's eradication programme, the Committee heard views from witnesses on the two main tests used on cattle: gamma interferon and skin interferon tests.

55. The Committee heard that since 2015 there has been a rise in the number of cattle slaughtered whilst there has been a decrease in the number of new TB incidences in herds. This was attributed by witnesses to the use of gamma interferon tests in high risk areas. The sensitivity of this test carries the risk of healthy cattle being slaughtered.

56. Professor Woodroffe explained that gamma interferon is a more sensitive test, which can have more true positives, but also more false negatives. As a result, a greater number of TB free animals may be slaughtered. In response to a question as to why the number of herd incidences has gone down but the number of cattle slaughtered has gone up, she said:

“A lot more use of gamma interferon testing, for example, which is a more sensitive but also less specific test, which is a good idea if you're trying to control disease.”³⁸

57. Dr Paton, the Wales Branch President of the BVA, advised that in Wales the majority of tests conducted are skin interferon tests, with gamma interferon more likely to be used in high risk areas and targeted on 'problem' farms. He confirmed that the sensitivity of the test meant there was a risk of killing healthy animals but felt it was an acceptable risk. He said:

³⁵ CCERA, 8 December 2016, para 24

³⁶ CCERA, 8 December 2016, para 364, 366

³⁷ CCERA, 8 December 2016, para 370

³⁸ CCERA, 10 November 2016, para 9

“In terms of the sensitivity, yes, it is more likely to find the infected animals in there and, more importantly, is less likely to leave infected animals behind. But, the balance with that is we take more cattle than we should—more healthy cattle—out of the herd. I think it is, where appropriate on appropriate farms to get to the bottom of a problem, a perfectly acceptable strategy and it is something that we have to accept—that we’re going to take more cattle than we really need to.”³⁹

58. Dr Fenwick from the Farmers’ Union of Wales (FUW) also commented on the increased reliance on this testing within the consultation. FUW considered the practice in England:

“... even when you account for increased testing, we’re still killing more cattle ... So, whilst I’m not saying that gamma interferon doesn’t give us some reactors that maybe we wouldn’t have had, what’s the proportionality of that?”⁴⁰

59. The Committee delegation who visited Dublin heard how gamma interferon testing is being used in Ireland. As in Wales, it has led to an increase in reactor numbers. Nevertheless, the Irish Chief Veterinary Officer considered that testing regime is worthwhile in tackling the disease.

Welsh Government position

60. On 16 January 2016 the Cabinet Secretary published a written statement on a report into the impact of the increased use of gamma interferon testing on the number of cattle slaughtered because of bovine TB. She attributes the rise in the number of cattle slaughtered to the increased use of this method of testing, stating:

“The rise in cattle slaughtered is primarily a result of our increased use of the interferon-gamma test. Gamma-testing has a high level of sensitivity which discloses more reactors than the standard skin test. It is one of our most important tools in eliminating disease from infected herds because, when used alongside the skin test, it improves the likelihood infected cattle will be identified. It may also detect infection even earlier which helps us identify infected cattle before they go on to infect others. The increase in gamma-testing has resulted in a dramatic increase in the number of gamma positives, contributing significantly to the overall rise in animals slaughtered.

It is my aim to keep the number of cattle slaughtered because of TB to the minimum necessary, whilst eliminating disease from herds as quickly as possible to prevent it spreading to other cattle, wildlife or humans. The measures applied to date are demonstrating a positive effect. We will continue to use the gamma test strategically where we can make the best use of it to complement our other controls.”⁴¹

³⁹ CCERA, 10 November 2016, para 236

⁴⁰ CCERA, 8 December 2016, para 169

⁴¹ <http://gov.wales/about/cabinet/cabinetstatements/2017/gammatesting/>

Improved biosecurity measures

61. The Committee heard evidence of the important role farmers have in controlling the disease through good biosecurity and animal husbandry. We heard evidence of the need for the farming community to endorse the evidence and the proposals for stricter biosecurity measures.

62. Dr Wright of the FUW spoke of the need to properly assess existing biosecurity controls before implementing new ones in order to ensure the burden on businesses is proportionate. She said:

“There are additional controls within this consultation that are add-ons to previous controls that the union has opposed in the past. And those previous controls haven’t been evaluated for their effectiveness before stricter versions of those controls come into the next consultation. So, for me, it’s about prioritisation, impact assessment of the controls that are currently in place, looking at the financial and administrative burden and time burden on farmers, and having a look to see if there’s actually some that are superfluous to requirements, which impose a disproportionate burden on a farmer compared to the disease impact.”⁴²

63. She called for an evaluation of all the proposed biosecurity measures, to identify:

“Which really have an impact on disease control, and which are there because we think it might be a good idea, but he haven’t actually evaluated it? Those are really important questions. They’re important for the competitiveness for the business, actually.”⁴³

64. Lizzie Wilberforce of WTW said that the Welsh Government’s proposals were more likely to gain buy-in and be more effective when tailored to the needs of the individual business. She said:

“... there’s evidence that when you’ve got regional strategies, including specifically biosecurity, and if you’ve got tailored solutions, people are more likely to buy into it. It’s such a complex picture that broad-brush solutions are likely to be ineffective anyway, but if people feel that they have tailored solutions, they’re more likely to engage in the process, because the chances of success that come with that tie into the level of scrutiny that local situations have been given. I think there’s some published evidence that people comply with biosecurity solutions that are tailored to high-risk areas more readily.”⁴⁴

65. The Committee heard from witnesses on the issue of indirect bovine TB transmission through the environment (for example bacteria within slurry). Witnesses and the Cabinet Secretary suggested that this aspect of transmission is not fully understood and that more work is needed in this area.

66. Professor Woodroffe spoke of a project she is undertaking to examine the role of environmental transmission, in order to inform biosecurity measures. She advised:

“Some research that has been going on in my group recently has suggested that badgers and cattle very seldom come into direct contact, suggesting that

⁴² CCERA, 8 December 2016, para 162

⁴³ CCERA, 8 December 2016, para 166

⁴⁴ CCERA, 8 December 2016, para 247

the transmission is most likely happening through the environment. Now, that's important because it's always been assumed that if you take away the test-positive badger or the test-positive cow, the infection is gone. But what this hints at—and we're doing more research to look at it—is that the bacteria may not be gone; the bacteria may still be surviving in the environment and some of these repeat breakdowns—they may be getting re-infected from the environment, even though the hosts, the animals that have the disease, may have been removed.”⁴⁵

67. Professor Woodroffe spoke of the large distances over which slurry is spread, including from one farm to another, and the need to understand the role that indirect transmission plays in spreading TB.⁴⁶

68. Farming representatives accepted that a risk existed but highlighted the financial implications of managing the risk. In response to a question about the risk of spreading TB through slurry on pasture, Dr Fenwick from the FUW said that the risk from slurry decreases over time and the risk is dependent on many factors, including the way it is stored.⁴⁷

69. WTW told the Committee that “it’s quite an evolving evidence base at the moment ... But the more recent evidence is going much more down the line of showing that transmission is most likely via the environment not between badgers and cattle”.⁴⁸ James Byrne of WTW went on to say:

“... there’s the evidence that TB stays in the environment. Even if you remove all the badgers and you remove all the cattle, TB will still be in the environment for, potentially, up to months. So, they’ve been looking at trialling measures to see how they can mitigate that in terms of biosecurity measures—she’s [Professor Woodroffe] suggesting slurry control measures, et cetera. But she didn’t have a list that she could give you now, because she wants to look at them and trial them. So, I think it will be very important to have a look at that—the results that are coming out about that.”⁴⁹

70. There is a clear need for more evidence on the extent to which better biosecurity practices, in particular slurry management, can limit the spread of the disease.

Welsh Government view

71. On the issue of management, the Cabinet Secretary suggested that the environmental aspect of transmission is not fully understood and that more work is needed in this area. She said:

“When I came into portfolio and was looking at this, there were very limited data around cattle faeces, for instance. But we know that, in slurry, it can live for up to about 6 months.”⁵⁰

⁴⁵ CCERA, 10 November 2016, para 85

⁴⁶ CCERA, 10 November 2016, para 172

⁴⁷ CCERA, 8 December 2016, para 182

⁴⁸ CCERA, 8 December, 2016, para 279

⁴⁹ CCERA, 8 December, para 234

⁵⁰ CCERA, 14 December 2016, para 76

72. Professor Glossop said:

“Looking at slurry and the treatment of slurry is just one piece of the biosecurity package, and that’s why we believe that each farm needs to have its own biosecurity protocol because they can understand the risk factors, really ... One of the approaches could be—and we do this on some farms—to require them to hold that slurry for that period of time. Of course, there are practical difficulties associated with that.”⁵¹

Our View

Examples from abroad show that risk of cattle-to-cattle transmission can be managed and reduced through informed purchasing, Risk Based Trading and biosecurity measures. The steps the Welsh Government has proposed are proportional and necessary.

The provision of a Welsh Government grant to help livestock markets to better display TB information about the cattle being sold, mentioned in their consultation document, is very welcome. The Welsh Government needs to work with the industry towards a point where information is available throughout all points of sale in Wales on the relevant herd history.

The Committee supports the introduction of voluntary Risk Based Trading and urges the Welsh Government to set a date by which this will be introduced. Further clarification is needed about the factors that need to be in place before such a system can begin on a voluntary basis, i.e. at what point will there be sufficient information on herds to enable this to happen and what is being done to collect this information? The Welsh Government should evaluate the voluntary scheme and consider whether Risk Based Trading should be made mandatory if it is shown that voluntary measures are not being followed.

The Committee heard evidence of the increased sensitivity of the gamma interferon test leading to an increased risk of healthy cattle being slaughtered. The need to eradicate this disease means that the use of this test is necessary, in addition to the skin interferon test. Members noted the evidence from the BVA that the test is used in a minority of farms which are deemed High Risk. However, the need to balance the methods for dealing with the disease against the cost to businesses in productivity and lost stock must be maintained.

There is a clear need for more evidence to better understand the environmental transmission of TB. The Welsh Government should ensure that the guidance on slurry management, particularly with regards to spreading between farms, is based on the most up to date evidence.

Better evidence of the relationship between herd size and herd management practices is also needed and the potential risk this poses to the eradication of TB. Accepting that the size of the herd may not be as important as the management of that herd, it is still a significant risk factor which could be better addressed in the Welsh Government’s approach to the eradication of the disease.

Recommendation 3. The Welsh Government should carry out more research into the possible risks of spreading TB from larger herd sizes and slurry management practices.

⁵¹ CCERA, 14 December 2016, para 75

Being able to include advice on both of these issues in guidance from the Welsh Government would enhance the support offered to farmers in dealing with this disease.

Recommendation 4. The Welsh Government should maintain a watching brief on the latest scientific evidence for bovine TB testing and explore all options for an effective testing regime which is proportional to the risks identified.

Recommendation 5. The Welsh Government should engage industry as far as possible in the development of an online biosecurity package to ensure that Welsh farmers can develop farm-specific measures that will add value to its efforts to control and eradicate the disease.

Recommendation 6. The Committee supports the Welsh Government's proposal to encourage Informed Purchasing, also known as Risk Based Trading. A system of Risk Based Trading should be taken forward voluntarily in the first instance with the industry and livestock markets. This should be kept under review and, if necessary, introduced on a mandatory basis.

05. Transmission through wildlife

The Committee looked at the role of badgers in the transmission of bovine TB to cattle. This chapter sets out the Committee's conclusions on this issue.

73. In its consultation document 'A Refreshed TB Eradication Programme'⁵², the Welsh Government sets out a range of options to address the reservoir of the disease in wildlife, including:

- monitoring the level of infection in badgers, for example through the badger found dead survey;
- encouraging badger vaccination when vaccine becomes available;
- taking appropriate interventions to break transmission routes between cattle and wildlife (aside from biosecurity);
- reducing the risk of infection spreading through cattle movement and from infected badgers; and
- exploring and developing ways to break the transmission cycle between cattle and badgers, where it can be demonstrated badgers are contributing to the problem in chronic herd breakdowns (including catching and humanely destroying badgers).

Summary of evidence on the role of badgers in TB transmission

74. Evidence from witnesses highlights the need to know more about the extent to which badgers are responsible for infecting cattle with TB and how this occurs. In its evidence, WTW cited the modelling work of Donnelly and Nouvellet⁵³ (2013), which suggests badgers are responsible for an estimated 5.7% of bovine TB outbreaks in cattle.⁵⁴

75. Farming representatives gave evidence of the risk posed by badgers in spreading the disease. Stephen James of the National Farmers' Union (NFU) Cymru emphasised that no matter how small the risk of transmission from wildlife to cattle, it was important that it was addressed. He explained:

"I know the wildlife trusts or the Badger Trust will say that badgers are only responsible for 5 per cent of infection, but if it's 1 per cent, that starts the ball rolling. Once one animal on the farm is infected, it passes it on. We see plenty of areas where they go clear for two or three years and then it comes back, because it recycles."⁵⁵

76. Dr Fenwick from the FUW said:

"It's worth noting that evidence from the ISG [Independent Scientific Group] shows that 50 per cent of TB cases in the areas where they were culling in

⁵² A Refreshed TB Eradication Programme

⁵³ <http://currents.plos.org/outbreaks/>

⁵⁴ CCERA, 8 December 2016, para 235

⁵⁵ CCERA, 8 December 2016, para 150

England until 2006/07 were caused by badgers, based on the data they collected during the cull. So, the problem is huge.”⁵⁶

77. Dr Wright of the FUW was concerned that the Welsh Government’s consultation document did not give enough detail on the proposals for culling badgers. She urged policy makers to be more explicit in their advice as to when badgers could be controlled and went on to say:

“We need to be looking at an approach that suggests that, on a farm, if the badger has any impact on the disease on that farm, no matter what the farmer does, no matter what control measures he puts in place, there is a source of reinfection that isn’t being dealt with. And I think we’ve skewed our policy towards cattle controls at the expense of badger control.”⁵⁷

78. The BVA highlighted that the control and eradication of bovine TB must be based on the application of sound scientific research and veterinary epidemiology. Dr Paton the Wales Branch President of the BVA, said in controlling the disease the wildlife vector was not presently being addressed. He said:

“... the BVA would be very adamant that TB control is only going to work if we use all the tools in the toolbox, and badger control and control of the wildlife sector has to be one of those.”⁵⁸

79. In answer to a question about whether or not the disease could be eradicated by cattle to cattle measures alone, he said:

“I don’t think so, because we would always have that internal, that re-infection pressure from the wildlife reservoir. So, there is 50 per cent cattle-to-cattle transmission—I’m not going to argue with that number—but where that originates from is typically from introduction from another source, and some of that source is wildlife. So, once one cow is infected within that, then it spreads potentially rapidly within that, so unless you’ve dealt with the wildlife as part of your overall control strategy, then you’re not going to get to an eradication stage.”⁵⁹

The perturbation effect

80. The Committee heard conflicting evidence on the perturbation effect associated with culling. Much of the discussion around perturbation cited the RBCT, however studies since then by Professor Woodroffe from Defra and studies in Ireland were also identified.

81. The Cabinet Secretary defined the Government’s understanding of the perturbation effect as:

“The RBCT showed that culling caused disruption to the social structure of badger groups:

⁵⁶ CCERA, 8 December 2016, para 150

⁵⁷ CCERA, 8 December 2016, para 144

⁵⁸ CCERA, 10 November 2016, para 215

⁵⁹ CCERA, 10 November 2016, para 281

-
- their foraging ranges expanded and there was more overlap of social group territories.
 - there was more frequent immigration to fill the void left from culling.
 - a higher prevalence of TB was found in the remaining badger population.
 - lower genetic relatedness.

The hypotheses based on these findings was that the increased prevalence of disease in the remaining badger population and the greater ranging could increase the opportunity for transmission and so cause the observed increase number of cattle breakdowns as seen in the 2km buffers around proactive culling areas and in the reactive culling areas.

The conclusion from the RBCT was that localised badger culling not only fails to control TB in cattle but can actually increase the incidence.”⁶⁰

Professor Glossop was sceptical of the evidence for the perturbation effect but insisted that the Welsh Government was being cautious nonetheless. At the Committee meeting in December she said:

“It is reasonable to assume that, in populations of wildlife that are very territorial, like badgers, if you remove some, there may be some mixing of populations, because the badgers that were defending their boundary aren’t there anymore to defend it. So, badgers move around. But my personal view is that an awful lot emphasis has been placed on perturbation, but, because there is evidence there, or suggested evidence there, that’s exactly why, we have requested that no cull zone in England comes within a 2 km of the border with Wales, because we don’t want to have a problem at that border.”⁶¹

She described the RBCT as ‘incomplete and interrupted’ and said:

“... we are not proposing to do things in the same way as the protocol for the randomised badger culling trial. So, I can’t tell you what will happen; we haven’t done it yet, but we are devising our approach to maximise the benefit and minimise any potential disbenefit of that intervention.”⁶²

Stakeholders’ views

82. Professor Woodroffe told the Committee that, in her view, localised culling can increase the risk of spreading the disease due to the perturbation effect. The only way to avoid this situation was to have a sufficiently large cull zone, which can bring other problems such as increased expense and contravention of the Berne Convention.⁶³

83. Professor Woodroffe argued that the perturbation effect diminishes any benefit that arises from small scale culling. She explained:

⁶⁰ Letter from Cabinet Secretary for Environment and Rural Affairs, 23 March 2017

⁶¹ CCERA, 14 December 2016, para 79

⁶² CCERA, 14 December 2016, para 98

⁶³ CCERA, 10 November 2016, para 140

“My research team was commissioned by the Department for Environment, Food and Rural Affairs to look at what the evidence was that small-scale culling of badgers would cause this social disruption, this perturbation. The evidence that we were able to collate suggested that it would—it looks as though perturbation starts with the first badger you take out. When small-scale culls happened as part of the Government policy in England between 1986 and 1998, that was associated with wider badger ranging, more TB in the badgers, and all the things that we saw when we did small-scale culling and large-scale culling of badgers.”⁶⁴

84. Dr Paton of the BVA said he was sceptical about the value of a localised cull. He said:

“If we take out one badger sett or one farm’s sett—a farm’s population of badgers—then there’s a whole surrounding population of badgers to move in and contaminate, or be re-picked up in the infection... So, to make that significant, to make that improvement, we need to make it over a significant area of the 150 sq km—and the hard borders and sufficiently reduce the number of badgers within that area. I suspect there would be more movement of badgers within that and, therefore, the likelihood of spread of TB within that area is higher. That’s what, as far as I can tell, the evidence supports.”⁶⁵

85. The Committee heard evidence from WTW that they supported the work done by Professor Woodroffe, which demonstrated that the perturbation effect reduces the benefits of culling. Lizzie Wilberforce said:

“The only absolute about perturbation is that you can only stop it happening if you can absolutely guarantee that you can stop badgers moving, which means either getting rid of all the badgers or doing something that doesn’t affect their behaviour at all, which is why vaccination removes that, because it doesn’t actually take any animals out of the system. So, I think when you start looking at creating a system where there’s no movement of badgers, you’re talking about a scale of operation that’s...at such a scale it would probably contravene the Bern convention, and the fact that, actually, all the experience shows so far that you can’t even trap a significant enough proportion of the badger population to ensure that that doesn’t happen.”⁶⁶

86. James Byrne from WTW, in opposition to culling, went on to say:

“We as an evidence-based organisation will take the most recent science, and that is that it [localised culling] just doesn’t work.”⁶⁷

87. Evidence from Defra suggested that there are certain types of hard boundaries (such as rivers and large roads) that can “virtually eliminate the risk”⁶⁸ of perturbation. When questioned as to the

⁶⁴ CCERA, 10 November 2016, para 136

⁶⁵ CCERA, 10 November 2016, para 256

⁶⁶ CCERA, 8 December 2016, para 243

⁶⁷ CCERA, 8 December 2016, para 244

⁶⁸ CCERA, 8 December 2016, para 358

supporting evidence base behind its decision to conduct culling in light of the issues surrounding perturbation, Dr Hovi stated:

“The overall evidence base showing that, in the long term, the negative impacts of perturbation are overcome by the positive impacts of the long-term effect on the cattle disease...Nevertheless, the positive effect of culling in a large area where proactive culling is carried out is still a 16 per cent reduction in diseased cattle overall. We figure that’s adequate for us. We are hoping that, with a different way of doing the culling, we are allowing much larger areas and, in fact, we said that the areas have to be greater than 100 sq km, but most of the cull area that we have ongoing at the moment – the 10 cull areas- are much, much larger than that, and we’re hoping that, together with the hard boundaries that are a requirement for the licence, will mitigate the perturbation effect...We only have results from the cull areas...for the first two years in the two cull areas in Gloucestershire and Somerset, the published analysis so far hasn’t shown any perturbation effect in the surrounding 2 km area. So, we’re hopeful that we won’t see it, at least to the extent that it was seen in the RBCT...The conclusions are that we haven’t seen any change. We haven’t seen the perturbation effect in the surrounding area, and we haven’t seen yet any statistically significant change in the cattle disease in those areas.”⁶⁹

88. The discussion the Committee had with farming representatives showed they were sceptical of the conclusions drawn about the perturbation effect on the basis of the RBCT. Dr Fenwick from FUW said:

“We also need to bear in mind that the perturbation effect disappears in terms of culling. So, there was perturbation, apparently, from the figures during the five years of culling, but in the two and a half years after that, perturbation disappeared, and therefore the positive impacts of culling were far greater than they were when originally reported.”⁷⁰

89. On the RBCT, he said:

“...when you take the data from the randomised badger culling trials and you analyse them without the distortions applied in terms of modelling—. There were some mathematical distortions to the data—‘corrections’ they called them—but if you take the plain data, the perturbation effect is either negligible or non-existent in terms of the raw data, so it simply wasn’t seen when you looked at the raw data; it only comes out of the system when it’s run through mathematical models, and that’s an important factor. So, I don’t think the jury is back in on perturbation; I think there are some peculiar questions to be asked in terms of the effect of perturbation. We don’t actually know what impact, if any, there would be were we to remove animals that were positively identified as positive.”⁷¹

⁶⁹ CCERA, 8 December 2016, para 381-383

⁷⁰ CCERA, 8 December 2016, para 94

⁷¹ CCERA, 8 December 2016, para 95

90. Dr Wright from FUW went on to say:

“...we have to bear in mind that there are ways to manage perturbation when you design badger control policies. So, it’s not an either/or situation; it’s not as though we have a situation where we say, ‘Badger control will automatically lead to perturbation’.”⁷²

Welsh Government position

91. Following a request from the Committee, the Welsh Government provided a note on the evidence of the perturbation effect following culling of badgers, how it has been interpreted by Defra and the Welsh Government and how this has influenced their respective approaches to bovine TB eradication. They stated:

“We have good evidence that social perturbation in badger populations happens in the wake of culling operations and it is a plausible explanation for the observed outcomes of the RBCCT. However, we have little information on what perturbation looks like at the local scale or how changes in the number of badgers removed affects the level of perturbation and exactly how it relates to epidemiological outcomes.

As part of our badger removal operation we will gather data to:

- examine the effect on the status of the chronic breakdown herd (though this will can only be measured as a result of the combined measures applied)
- examine the effect on incidence in the surrounding cattle herds
- better understand the effect on the social structure of badgers
- measure the prevalence of TB in the remaining badger population
- using the panel of results, continue to evaluate the performance of the Dual Path Platform (DPP) trap side test, and review and adapt our removal policy if the resulting evidence deems it necessary.

We will work with colleagues in the Animal and Plant Health Agency (APHA) to develop processes to gather data and develop systems to analyse the results to achieve this.”⁷³

Vaccination

92. The Committee heard evidence about Northern Ireland’s (NI) ‘Test and Vaccinate or Remove’ (TVR) approach. This five year research programme by the Northern Ireland Executive involves capturing badgers and testing them for TB. Badgers with a negative test result are micro-chipped, vaccinated and released. Badgers with a positive test result are destroyed.

93. The TVR approach was previously developed and rejected in Wales.⁷⁴ The model had two alternative projections based on different social perturbation assumptions. That:

⁷² CCERA, 8 December 2016, para 104

⁷³ [Letter from the Cabinet Secretary for Environment and Rural Affairs](#), 23 March 2017

- In the models with no social perturbation, the approach would be more effective in reducing TB than culling or vaccinating badgers alone; or
- In the models with social perturbation after each badger culling, there was a dramatic increase in the number of infected badgers and the number of cattle herd TB breakdowns. This would be due to the large number of susceptible badgers left in the population (only a proportion of badgers would be caught, tests are not 100% accurate and the vaccine is not 100% effective).⁷⁵

94. As a result of the concerns on the second point, the Welsh Government rejected the TVR approach in Wales. In 2013 the Northern Ireland Executive commissioned the same modellers to produce a different version of the simulation model used in Wales with different assumptions. The Welsh and NI modelling showed qualitatively different outcomes. The NI model showed a projected overall decrease in cattle herd TB breakdowns after the first year of the TVR programme (following an initial increase). The Welsh model showed an increase in herd breakdowns for five years until TVR ended.

Stakeholders' views

95. The BVA, in its evidence to the Committee, had concerns over adopting the Northern Ireland TVR approach in Wales, saying “the modelling does not support it and we haven’t seen the evidence to suggest that it’ll have the impact”.⁷⁶

96. The 2014 British Veterinary Association policy position supported the idea of targeted and managed badger culling as an option to be used in carefully selected areas where badgers are considered to be a significant contributor to the persistent presence of bovine TB.⁷⁷

97. The Committee heard from farming representatives that in their view culling was more effective than vaccinating badgers. Dr Fenwick of the FUW quoted a report:

“... as some of you will be aware, the EU taskforce for monitoring animal disease, which came over here in 2011-12, made it clear that there is, and I quote, ‘no scientific evidence to demonstrate that badger vaccination will reduce the incidence of TB in cattle. However, there is considerable evidence to support the removal of badgers in order to improve the TB status of both badgers and cattle.’”⁷⁸

98. Dr Wright of the FUW explained that the most effective way of using vaccination was on the border of a cull zone.

“There are ways of culling and controlling that allow you to move forward in a more reasonable way. In fact, the vaccination policy in the intensive action area in Pembrokeshire didn’t make scientific sense because it was vaccination within an endemic disease area. Obviously, that doesn’t have an effect on

⁷⁴ CCERA, 10 November 2016, para 132

⁷⁵ CCERA, 10 November 2016, para 133

⁷⁶ CCERA, 10 November 2016, para 271

⁷⁷ www.bva.co.uk/News-campaigns-and-policy/Newsroom/News-releases/British-Veterinary-Association-statement-on-second-year-of-badger-cull-pilots-in-England/

⁷⁸ CCERA, 8 December 2016, para 188

infected badgers. But actually ring-fencing vaccination around a cull zone could protect some badgers and could minimise the perturbation effect.”⁷⁹

Welsh Government position

99. In 2010 the Welsh Government established an Intensive Action Area (IAA) in Pembrokeshire, where increased measures would be implemented to tackle all sources of bovine TB in both domestic and wild animal species. A badger vaccination project in the IAA began in May 2012. It was due to enter its fifth year in spring 2016 but problems with the global supply of the vaccine meant that in December 2015 the Welsh Government announced ⁸⁰the pilot would be suspended a year early. The Welsh Government’s paper to the Committee said:

“In the IAA we have seen a falling trend in the number of open breakdowns. This is encouraging but more time is needed before we can see if there are any meaningful differences in trends. However, any changes we see will be as a result of all the measures we have introduced to reduce the level of infection within all species in the area and we cannot draw any conclusions regarding the role of badger vaccination alone in reducing TB incidence in cattle.

The vaccination of badgers was halted due to a global shortage of BCG vaccine available for use in humans. We are continuing to explore the possibility of obtaining human BCG from a different supplier and have remained in close contact with Defra and together we are monitoring developments relating to the availability and supply of vaccine.

Research continues into the feasibility of utilising BCG in Oral Bait as a tool to control the spread of Bovine TB ... Badger vaccination remains an important tool which should be used where appropriate.”⁸¹

100. In evidence to the Committee Professor Glossop explained that there is insufficient evidence to say with certainty what the effect of vaccinating badgers is on the incidence of TB in cattle.⁸² The Cabinet Secretary said that vaccination will play “a role in any future programme, if it became available”.⁸³ She went on to say that the Government was keeping a watching brief on the availability of vaccine and that it was too early to say how and where it would be used in future until there was more detail on the amount that would be available.

The Welsh Government’s proposals for the removal of infected badgers

101. In evidence to the Committee in December 2016 the Cabinet Secretary spoke of ‘ruling out an English-style cull’, saying:

“... I thought it was very important to get that message out – that we are ruling out an English-style cull. And, I suppose by that I mean culling including the

⁷⁹ CCERA, 8 December 2016, para 104

⁸⁰ <http://gov.wales/newsroom/environmentandcountryside/2015/badger-vaccination-project-to-be-suspended/>

⁸¹ Paper to the CCERA, 14 December 2016

⁸² CCERA, 14 December 2016, para 63

⁸³ CCERA, 14 December 2016, para 66

free-shooting of badgers undertaken by farmers under licence, which is, obviously what happens in England.”⁸⁴

102. The Cabinet Secretary stated:

“We are now working with the individual farmers and their vet to develop bespoke plans for each of the persistent breakdown farms and where we believe badgers contribute to disease in these chronic breakdown herds, we have to be innovative in finding ways to break the transmission of infection. This may include the removal of infected individual or group of animals.”⁸⁵

103. Professor Glossop further highlighted:

“I’ve noted that there’s quite a lot of criticism of what is perceived to be the reactive cull that we are talking about, on individual farms. And I think it’s worth just pointing out that we are not proposing that at all.”⁸⁶

104. The Cabinet Secretary for Environment and Rural Affairs wrote to the Committee on 23 March 2017 outlining the proposals for introducing a localised removal of infected badgers where “it is believed they are contributing to the persistence of TB in chronic breakdown herds”. The letter sets out the policy:

“Proposals for badger removal operations in Wales

In Wales, where it is believed that badgers are contributing to the persistence of TB in chronic breakdown herds, measures need to be implemented to break the badger to cattle route of transmission.

The delivery model we are proposing for the removal of badgers is not a repeat of the reactive cull element of the RBCT. The trap, test and removal operations being planned will be restricted to TB affected premises where veterinary epidemiological investigation indicates that infection of badgers on breakdown premises is the likely reason for a failure to eliminate infection from an associated cattle herd. There was no such consideration given in the RBCT. The removal of badgers will only take place once a TB test positive badger has been disclosed. Again, this differs from the RBCT where no attempt was taken to establish the infection status of badgers within the reactive culling triplets prior to their removal.

In the RBCT reactive culling operations were undertaken just once at the farm level over eight consecutive nights. Our intention is to repeat the operation and not to be restricted by eight nights of cage trapping where indications are that trapping efficiency can be improved by extending this period.

Evidence emerging from the recent All Wales Badger Found Dead Survey is that the TB prevalence in badgers in the areas where we intend to operate is not expected to be as high as that seen in the RBCT areas. The proportion of

⁸⁴ CCERA, 14 December 2016, para 14

⁸⁵ Paper to the CCERA, 14 December 2016

⁸⁶ CCERA, 14 December 2016, para 16

badgers found dead identified as having TB has fallen in Wales since a previous survey was conducted in 2005/06. We have been testing all cattle herds in Wales at least once a year since 2010 and have built up a much clearer picture of the disease across Wales. There is significant spatial heterogeneity with disease clustered in some areas and almost absent in others. As such a more widespread proactive cull of badgers in Wales seems difficult to justify. We will be applying the badger removal operations alongside a suite of enhanced cattle and biosecurity measures to clear disease from the herd. Because the badger intervention we propose to make differs from previous badger interventions in Wales, close monitoring and reviewing of the outcomes for the co-located herds will be an important part of the work and inform future policy development.

Evidence to measure effect

We have good evidence that social perturbation in badger populations happens in the wake of culling operations and it is a plausible explanation for the observed outcomes of the RBCT. However, we have little information on what perturbation looks like at the local scale or how changes in the number of badgers removed affects the level of perturbation and exactly how it relates to epidemiological outcomes.

As part of our badger removal operation we will gather data to:

- examine the effect on the status of the chronic breakdown herd (though this will can only be measured as a result of the combined measures applied)
- examine the effect on incidence in the surrounding cattle herds
- better understand the effect on the social structure of badgers
- measure the prevalence of TB in the remaining badger population
- using the panel of results, continue to evaluate the performance of the Dual Path Platform (DPP) trap side test, and review and adapt our removal policy if the resulting evidence deems it necessary.

We will work with colleagues in the Animal and Plant Health Agency (APHA) to develop processes to gather data and develop systems to analyse the results to achieve this.”

Our View

The Committee heard evidence of the role of badgers in spreading bovine TB, the measures taken historically and proposals to change the way it will be dealt with in future. Whilst we heard evidence that the transmission rates from badgers only account for 5.7% of cattle infections, there is a need for the wildlife reservoir to be addressed within a wider package of measures, including cattle controls and biosecurity.

The Committee heard of the difficulty of sustaining an effective badger vaccination trial in Wales due to the unavailability of the vaccine. The Committee supports a programme of badger vaccination,

when vaccine becomes available. The programme must be accompanied by scientific monitoring and evaluation to gather data on the efficacy of badger vaccination to reduce bovine TB in cattle. This data should be submitted for independent peer review

The Committee supports the Welsh Government's proposal to trap, test and remove infected badgers in Wales in areas where there is a persistence of TB in chronic breakdown herds. Such a programme must be targeted and supported by veterinary epidemiological evidence. It must have proper safeguards such as the use of hard borders or buffer areas. The Welsh Government must keep the scientific evidence under review to ensure the programme is effective in addressing the disease transmission from badgers to cattle. Again, the evidence should be submitted for independent peer review.

The Committee heard conflicting evidence of the degree to which the perturbation effect can negate the effects of badger culling. If the evidence for the perturbation effect is trusted, then the localised culling proposed by the Welsh Government would cause concern. Further clarification is needed about the introduction of mitigating measures such as hard borders or buffer areas of 2km.

Recommendation 7. The Welsh Government's proposals to introduce targeted badger removal in cases of chronic breakdown herds must be scientifically monitored and reviewed and either adapted or stopped if it is shown that it does not prevent the transmission of Bovine TB from wildlife to cattle. Any measures taken on a trial basis must include hard borders and adequate safeguards against the risk of any possible perturbation of the wildlife population.

Recommendation 8. The Welsh Government should report to the Committee 12 months after the programme of targeted badger removal begins to present its findings. We expect the Welsh Government to make its data publicly available in order to ensure transparency in their decision-making and review processes.

06. Cross-border arrangements

105. Wales shares 160 miles of land border with England and farmers living in both nations have properties which straddle the border. As stated, Wales borders three High Risk areas (Shropshire, Herefordshire and Gloucestershire) and one Edge Area (Cheshire). There is a risk that bovine TB could be transmitted between England and Wales – two jurisdictions with different approaches to tackling the disease in cattle and wildlife. The strategies to deal with the disease need to work together so as not to be counterproductive, as do the agencies with responsibility for eradicating TB.

Summary of evidence

106. Dr Hovi told the Committee that there had not been any applications for licences to cull in areas in England that border directly with Wales, and that if there had been, the Welsh Government would have been consulted. She went on to say “We work very closely with the Welsh Government colleagues on TB control. We have joint meetings regularly”.⁸⁷

107. When Professor Glossop and the Cabinet Secretary gave evidence to the Committee they said that, because of the ‘suggested evidence’ of perturbation, the Welsh Government has requested that no culling takes place within 2km of the Welsh border. Professor Glossop said:

“... we are in direct contact with DEFRA and Natural England, who are issuing the licences, and they have clear instructions that they will not cull within 2 km of the border with Wales.”⁸⁸

108. Dr Paton of the BVA also emphasised the need for cross-border co-operation to address issues such as the perturbation effect when culls take place close to the Welsh border. He said:

“We are going to have to work with the English Government to try and get an aligned response. We then have to worry that these badgers from these culls are going to cross the border and infect our farms ... It may be that some of these pilot areas for culls are targeted up there to try and manage that particular issue. It is going to be a headache, and cross-border co-operation is going to be vital to doing it, so talking to our English counterparts is going to be necessary as we work forward. But we need to talk, I think.”⁸⁹

109. The Cabinet Secretary provided the Committee with a copy of the Defra guidance governing the licensing of culls in England. This guidance, published in December 2015, states:

“Natural England and the Welsh Government should consider on a case-by-case basis any licence applications in respect of areas which cross the Welsh border. If an application relates to an area which is solely within England but within 2km of the border, Natural England should determine the licence application in the normal way but will consult the Welsh Government.”⁹⁰

⁸⁷ CCERA, 8 December 2016, para 362

⁸⁸ CCERA, 14 December 2016, para 87

⁸⁹ CCERA, 10 November 2016, para 340

⁹⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/489845/badger-culling-guidance-ne.pdf

Our View

The ways in which the risk of infection from wildlife is managed by the Welsh Government and Defra are very different. As such, there need to be adequate arrangements in place to enable both parties to be aware of any activity in areas in close proximity to the border between England and Wales.

It is important that Defra consults the Welsh Government early when considering requests for licenses for badger culling close to the Welsh border to reduce the potential risk from perturbation affecting wildlife and cattle in Wales.

Recommendation 9. The Welsh Government and Defra should ensure that the guidance which is in place to facilitate cross border liaison is robust, particularly in relation to the exercising of wildlife controls, including badger removal and culling. This guidance must be kept under review by the Welsh Government and Defra.

07. Governance of the eradication programme

Determining how best to manage the programme

110. The Committee heard evidence of the different approaches towards managing this disease in different countries and the extent to which it is owned and directed by the relevant government.

Summary of evidence

111. In Ireland, Members heard from the Minister for Agriculture, Food and the Marine that a key challenge in eradicating the disease was gaining the confidence of farmers that the disease can be eradicated, and emphasising that there is no room for complacency or weakening of the regulations. He discussed with Members the compensation scheme in place. This system involves: income supplements, population grants and hardship grants. Levies, for example on live exports and milk deliveries, were introduced in 1979. These see farmers contributing approximately €25 million to the testing programme.

112. The recently published 'Bovine Tuberculosis Strategy for Northern Ireland'⁹¹ places a strong emphasis on governance, culture and communication and includes a new governance structure of local, regional and national partnerships.

113. Evidence from Dr Livingstone, the former Eradication and Research Manager for New Zealand's Animal Health Board and Dr Enticott from Cardiff University highlighted that cooperation and co-management with the farming industry has been integral to the success of the TB eradication programme in New Zealand.⁹²

114. Dr Livingstone advised that the governance arrangements had seen a shift from the 1980s government-centric programme to a farmer-led programme. Currently farmers manage and administer the programme, and set the policy on compensation and movement control. The funding for all cattle testing and compensation is provided by farmers, with no government input. A levy on every cow slaughtered sees \$11.50 go towards the testing and compensation programme. The dairy industry also contributes approximately 1 per cent per kilogram of milk solids. Government funds account for half of the wildlife programme (approximately \$27 million of the \$55 million). Dr Livingstone stated that there was an 85 per cent satisfaction rating from farmers in relation to the programme (with farmers surveyed every two years).⁹³

Welsh Government position

115. The Welsh Government proposals involved realigning the current membership of the three regional TB eradication delivery boards⁹⁴ to match the new regional TB approach. The Boards are made up of farmers, vets, the Animal and Plant Health Agency (APHA), auctioneers, local authority trading standards and the Welsh Government. These boards operate alongside the TB Eradication Programme Board, chaired by Professor Glossop.

116. In response to a question about the need for involvement and ownership of the eradication programme and comparisons with New Zealand, the Cabinet Secretary stated:

⁹¹ www.daera-ni.gov.uk/sites/default/files/publications/daera/bovine-tuberculosis-eradication-strategy.pdf

⁹² CCERA, 8 December 2016

⁹³ CCERA, 8 December 2016, para 64

⁹⁴

<http://gov.wales/topics/environmentcountryside/ahw/disease/bovinetuberculosis/bovinetberadication/structure/>

“Well, we haven’t got a levy, which I know they had in New Zealand. So, they held the purse strings, which I think always focuses the mind. But it’s really important that we work with industry members, going forward ... We’ve got the eradication boards; we’ve got the programme board. It’s really important that industry members sit on there.”⁹⁵

Compensation for infected cattle

117. The Welsh Government pays compensation to owners for animals destroyed through the eradication programme. In her evidence paper to the Committee the Cabinet Secretary outlined that over the last 10 years this has amounted to almost £150 million. In its consultation document the Welsh Government proposes to reduce the maximum amount it pays in compensation from £15,000 to £5,000. The paper states that in anticipation of losing the £2-3 million which Wales currently receives from the European Commission, as a result of Brexit, the Welsh Government intends to reduce the cap to £5,000 ‘to make sure the valuation system is more financially sustainable’⁹⁶

118. In response to the compensation cap proposals, representatives from the NFU and the FUW expressed concerns that this may penalise those farmers that have invested heavily in animal genetics and improving the productivity of their animals.⁹⁷

119. Evidence from Dr Enticott suggested that capping compensation payments could have unintended consequences for farmers. They may be tempted to illegally cull badgers if they lose confidence in the government. He also suggested looking at models of best practice elsewhere which engage with the farming community, he said:

“The other thing I would say about compensation is to look at models of compensation in other countries. So, in New Zealand, the level of the compensation is set by farmers—not the specific level, but the overall level of compensation. So, farmers have said that, in certain cases, compensation shouldn’t be paid at all. In certain circumstances, 70 per cent of the value is paid. And that’s a decision made by farmers, and farmers make that decision themselves as part of the governance arrangements.”⁹⁸

120. The Committee heard evidence from farmers that the option of insuring against TB infection was not available to them, meaning they rely on the compensation payments to make up their losses, which they do not consider to be sufficiently covered. Stephen James of NFU Cymru said:

“Insurance companies used to insure against TB, but they stopped that many years ago, so that instrument isn’t there. Therefore, if you’re going to have—and it’s suggested in the consultation—an insurance scheme, somebody’s got to underwrite it, and that’s important.”⁹⁹

Welsh Government position

121. Professor Glossop commented that the Welsh compensation system took farmers’ investments into account to a greater degree than the English system, saying:

⁹⁵ CCERA, 14 December 2016, para

⁹⁶ https://consultations.gov.wales/sites/default/files/consultation_doc_files/161018-tb-eradication-en-b.pdf

⁹⁷ CCERA, 8 December 2016, para 202

⁹⁸ CCERA, 10 November 2016, para 194

⁹⁹ CCERA, 8 December 2016, para 205

“We’ve had a lot of meeting with stakeholders over the last few weeks while we’ve been out to consultation, including meetings where members of pedigree breed societies have been present ... and not one of them mentioned that as a problem, and I was really interested then to hear the unions sort of flagging that up is a concern. Of course it’s going to affect the people who own those animals, but, overall, it is a very small number of the animals that we’re taking, and for every other animal, they’re being valued by a valuer and having a proper market value paid, as opposed to the table valuation system that, of course, is in operation in England.”¹⁰⁰

122. In response to comments that farmers have invested in rare breeds which are not sufficiently compensated, the Cabinet Secretary stated:

“... I think we have to recognise that only 1 per cent of cattle valued would’ve been affected if we’d had that reduction of compensation in one year. So I think it was about 92 or 93 cattle ... our average compensation payments are 60 per cent higher when we compare them to England.”¹⁰¹

123. She also spoke of the option of insuring cattle against TB infection and said:

“Well, you know, as I say, if you look at the number of cattle that would’ve been outside that £5,000 limit, it was 93. So, it’s not a huge number. If farmers believe their cattle are worth more than that, they can insure them. I know that’s quite a new market. But, you know, there are steps that they can take to protect themselves, if they think that their cattle are worth more.”¹⁰²

Our view

The Committee was interested to hear of the differing approaches to managing TB eradication programmes across the globe. The programmes which have been more successful have the full involvement and support of the farming industry. The realignment of the TB eradication boards in Wales to correspond with the regional risk areas is welcome. The Committee would also welcome more detail on the timing of the proposed review of these boards as set out in the Welsh Government’s consultation document.

The Committee has considered the Welsh Government’s proposal to reduce the compensation paid to farmers for any animals it slaughters because of bovine TB, specifically the move to reduce the compensation cap, per animal, from £15,000 to £5,000. We note that the Welsh Government has also brought in The Tuberculosis (Wales) (Amendment) Order 2016 in order to have the powers to reduce compensation for farmers who ‘have broken the rules’.¹⁰³ We support the proposals from the Welsh Government to find ways to link the payment of compensation to the implementation of good farming and biosecurity and husbandry practices.

The Committee heard evidence of the limited availability of insurance to protect farmers in the event of a TB outbreak which means that they are heavily reliant on the Government’s compensation

¹⁰⁰ CCERA, 14 December 2016, para 49

¹⁰¹ CCERA, 14 December 2016, para 46

¹⁰² CCERA, 14 December 2016, para 48

¹⁰³ A Refreshed TB Eradication Programme

scheme. This compensates for the value of the animal but not the lost productivity to the business. It is important that the Government pays adequate compensation to farmers. It is also important to ensure that farmers are not penalised for investing in genetic stock to improve the productivity of their business.

One of the stated needs to cap the compensation payments to farmers is based on the assumption that the funding from the European Commission will not be forthcoming when the UK leaves the EU and that there will be less funding available for compensation. Although this is a risk, it is not a given. This Committee has already recommended that the UK Government makes a commitment to continue to fund agriculture in Wales at the current level until the end of the current and next Common Agricultural Payments period, that is, until 2027, in our report 'The Future of Land Management in Wales.'¹⁰⁴

European funding accounts for 15% of the Welsh Government's spending on eradicating bovine TB, therefore any future funding gap is unfortunate but not insurmountable. The Committee supports the principle of reducing the cap on payments in order to continue to provide value for public money. We would urge the Welsh Government to keep their policy under review and ensure that owners receive reasonable compensation for their cattle if they are slaughtered as part of the TB eradication programme.

Recommendation 10. The Welsh Government should pay farmers a reasonable compensation sum for cattle slaughtered as part of the TB eradication programme. This sum should be kept under review, in consultation with stakeholders.

¹⁰⁴ www.assembly.wales/laid%20documents/cr-ld10995/cr-ld10995-e.pdf

08. Implications of Brexit

Introduction

124. The UK's withdrawal from the European Union may have an impact on the funding for future TB eradication programmes in Wales and the ability to trade with the EU.

125. The Wales TB eradication programme saw £26,413,000 spent in the financial year 2015-2016.¹⁰⁵ The financing of TB programme delivery benefits from EU funding as part of Directive 77/391/EEC¹⁰⁶ and Decision 90/424/EEC¹⁰⁷. The value of this funding in 2015-16 was £3,990,000, that is, 15.11% of the total expenditure.

126. Current bovine TB policy is driven by several pieces of EU legislation. EU directive 77/391 requires Member States to develop eradication programmes. The rules governing the trading of bovine animals, and the animal health guarantees needed for the trade of cattle (and pigs) between the Member States to be declared officially TB-free, are set out in Directive 64/432/EEC.¹⁰⁸ Other Directives, such as Directive 64/433/EEC.¹⁰⁹ establish procedures and measures aimed at the detection of lesions of TB, post-mortem inspection and include a requirement that meat from animals with generalised TB must not be declared fit for human consumption. Together these Directives create a legal framework for intra-community trade and establish comparable health requirements to enable trade between Member States.

127. The committee heard that Wales' TB status could be used to limit red meat imports to the single market in upcoming negotiations. Stephen James of NFU Cymru said:

“I would just say that, in trade negotiations going forward, we know that you can make a trade negotiation with a country, but very often it's the phytosanitary, the vet certificates and whatever that can then be the stumbling block to stop it happening... That's a risk, and I think that needs addressing.”¹¹⁰

128. Members sought information from the Cabinet Secretary regarding possible risks to Wales' ability to trade with the EU post-Brexit, in light of Wales' TB status. In her evidence to the Committee, the Cabinet Secretary advised:

“Early discussions don't lead me to believe that it will be an issue. I know it is something that has been used against us, if you like, but I have had discussions around this and it's something I will keep a close eye on. We're not the only country, obviously, with TB.”¹¹¹

Our view

The Committee heard evidence from the Welsh Government about how our exit from the European Union may affect their bovine TB eradication policies. The reduced level of funding available for programme delivery amounts to 15% of the total spend. It is likely that the source of funding for TB

¹⁰⁵ Letter from the Cabinet Secretary for Environment and Rural Affairs, 23 March 2017

¹⁰⁶ <http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:31977L0391>

¹⁰⁷ www.warmwell.com/90424eec.pdf

¹⁰⁸ <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:31964L0432>

¹⁰⁹ <http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:31964L0433>

¹¹⁰ CCERA, 8 December 2018, para 209

¹¹¹ CCERA, 14 December 2016, para

testing and other measures will change as a result. There may also be potential impacts on trade and exports. However, we were told that there was a low risk of not being able to trade freely with the single European market in future because of Wales' TB status.

The Committee seeks assurance from the Welsh Government that its refreshed bovine TB eradication policy is suitable to ensure continued trading and access to the European market.

It is wise for the Welsh Government to seek to reduce the overall bill for TB eradication, but anticipation of reduced funding levels should not be the reason given for not providing reasonable compensation to farmers. The Committee asks the Welsh Government to share any risk analysis it has prepared for the TB eradication programme on our exit from the EU.

Recommendation 11. The Welsh Government must ensure that current funding received from the European Union for bovine TB testing and other measures will be guaranteed within future Welsh Government budgets.

Recommendation 12. The Welsh Government must seek urgent assurances from the UK Government that the Bovine TB status of the UK will not affect continuing access to the EU Single Market.

Next Steps

129. The Committee will review the delivery of the Welsh Government's eradication programme after a full year of implementation in order to determine the extent to which it has achieved its objectives.

Annex A – Oral evidence and Committee visit

The following witnesses provided oral evidence to the Committee on the dates noted below. Transcripts of all oral evidence sessions can be viewed in full at: [Transcripts](#)

10 November 2016

Witness	Organisation
Professor Rosie Woodroffe	Institute of Zoology
Dr Gareth Enticott	Cardiff University
Dr Neil Paton	British Veterinary Association

8 December 2016

Witness	Organisation
Dr Paul Livingstone	Former TB Eradication and Research Manager for New Zealand's Animal Health Board
Dr Nick Fenwick	Farmer's Union of Wales
Dr Hazel Wright	Farmer's Union of Wales
Stephen James	President of the NFU Cymru
Peter Howells	NFU Cymru
James Byrne	Wildlife Trusts Wales
Lizzie Wilberforce	Wildlife Trusts Wales
Dr Malla Hovi	Department for Environment, Food and Rural Affairs (Defra)

14 December 2016

Witness	Organisation
Lesley Griffiths AM	Cabinet Secretary for Environment and Rural Affairs
Professor Christianne Glossop	Chief Veterinary Officer for Wales
Martin Williams	Head of Plant Health and Bio-Technology Unit

26 January 2017 – Committee Delegation - Members visited Ireland to meet with the Minister for Agriculture, Food and the Marine (Michael Creed, Teach Dála (TD)), Ireland's Chief Veterinary Officer and a number of officials.