

Bovine Tuberculosis (bTB)

Consultation on the
Department's Proposed
Implementation and Next Steps
of the bTB Eradication Strategy
for Northern Ireland

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Consultation on the Department's Proposed Implementation and Next Steps of the bTB Eradication Strategy for Northern Ireland



Foreword



As Minister for Agriculture, Environment and Rural Affairs, I understand the pressures and stresses that farmers face in running their businesses. I have seen and experienced at first hand the awful impact that a bTB breakdown can have on farming families. I also care deeply about the environment and the wildlife that live within it. I want to see a healthy population of both cattle and wildlife, and to ensure that Northern Ireland moves forward in the next steps towards bTB eradication. This paper outlines what I intend those next steps to be.

I am pleased to detail below the actions my Department has taken in recent years - **what we have done**; the proposals which I intend to introduce as part of a new bTB Eradication Strategy - **what we will do**; and, to seek your views on the future decisions I must take with regards to key elements of its implementation - **what we could do**.

With regards to **what I will do**, it is my intention, to proceed with a number of strategic measures which will be taken forward from mid-2021 onwards as part of the new Strategy. These relate to how my Department works better with farmers, vets, conservationists, landowners and other key stakeholders and how we can improve and enhance the current regime of testing and disease prevention. They also relate to how we can work better with farmers and vets to help them stop disease entering the farm in the first place; and, importantly, how we can broaden the scope of research into the nature and cause of bTB infection and spread.

If the bTB Eradication Strategy for Northern Ireland is to be successful all factors which contribute to the spread and maintenance of the disease must be addressed. All of the areas for action must proceed and make a meaningful contribution. This was stated by the TB Strategic Partnership Group (TBSPG) and is a position I fully support.

Therefore I am seeking your views on two areas of Strategy implementation detailing **what I could do**. I will make final decisions later this year on both badger intervention and on compensation changes, and your input will assist me in doing this.

I do not believe there is any argument about whether badgers can contract bTB and act as a reservoir of bTB in the environment. They therefore have an important role in the disease picture, which must be addressed. It is my intention to introduce a programme of badger intervention. An approach recommended through the business case is presented in this paper and I wish to hear views on this.

The current bTB programme costs the taxpayer approximately £40 million each year. This year on year significant expenditure is wasteful and was criticised by the Northern Ireland Audit Office. This is not sustainable given the pressures on the public purse and public services,

particularly as we seek to recover from the economic impact of Covid-19. We can address this by reducing the bTB incidence rate and therefore reducing compensation payments overall; however, I also intend to introduce a cap on individual compensation payments and in a phased basis reduce the rate of compensation payment from the current 100%. The proposed approach to this is detailed in this document and, again, I welcome your views on these changes.

I very much appreciate that some of these changes may be difficult, but I am determined to act as the current position cannot continue. I will need to introduce new legislation in relation to compensation change and badger intervention once I have made final decisions on a way forward. This exercise and the responses to it will assist me in making those final decisions.

When taking office just over a year ago I stated that one of my top priorities was to reduce and eradicate bTB. That remains the case. I have listened to farmers, to veterinary bodies, to conservation groups and to fellow MLAs, and whilst they may have different perspectives, they all want the same thing as I do - to eradicate bTB from Northern Ireland. I therefore ask for your support for the measures I intend to introduce and welcome your views on those key areas being consulted on.

Thank you

A handwritten signature in black ink, appearing to read 'Edwin Poots', written in a cursive style.

Edwin Poots MLA

Minister of Agriculture, Environment and Rural Affairs

Part 1 - Scope and nature of this consultation

1.1 What we are seeking views on

This paper represents a significant step forward in the implementation of a new bTB Eradication Strategy for Northern Ireland. There are three main parts to this document.

In **Part 2** we outline **what has been done** in recent years with regards to tackling bTB and moving a new bTB Eradication Strategy for Northern Ireland forward.

In **Part 3** we outline **what we will do**; the proposals which were previously consulted upon in 2017, which the Minister has now indicated that he intends to start delivering from 2021 onwards. These will be subject to securing funding, and in some instances changes to legislation. We will also seek your views on two matters within this part of the consultation. These are the criteria for the compulsory use of the interferon gamma blood test and subordinate legislation to increase powers to test non bovines, in particular deer and camelids, in holdings where cattle are not present.

In **Part 4** we outline **what we could do**; what is proposed in relation to **badger intervention** and **compensation change**.

It is important to note that we will be taking the bTB Eradication Strategy forward as one programme of measures; however by nature some of these will be simpler and more straightforward to implement. Some as outlined in Part 3 we intend to do now, others which may require legislation and further engagement with key stakeholders will take more time to operationalise. We will proceed on the basis of an agreed implementation timeline. The key point is that all the measures will make a contribution to the overall aim of eradicating bTB.

It is recognised that these elements of a new Strategy will garner a range of views from both members of the public and key stakeholders. It is also within these two areas from which the Minister will be taking decisions later this year on a proposed way forward. It is the intention of this consultation to seek these views now. This will allow the Minister to make final decisions with regards to badger intervention and compensation changes having consulted on the options under consideration. The decisions made will take into consideration the most recent public and stakeholder views.

We are not consulting on whether some form of badger intervention is required as evidence shows that, in order to reduce and eradicate bTB, all factors which contribute to the spread and maintenance of the disease must be addressed.

Nor are we consulting on whether changes to the current bTB compensation scheme are necessary, rather; we are consulting on the nature of proposed changes.

The Department does not seek to consult once again on whether a new invigorated programme, to firstly reduce and then eradicate bTB, is needed. Nor do we wish to seek further views on the proposals and actions relating to partnership working, enhanced cattle measures (there are a

couple of exceptions relating to new animal health regulations), herd health or disease research, though you are free to make comment on these if you wish to.

The responses received to the previous DAERA consultation in 2017/2018 were generally supportive of these proposals, and the Minister has confirmed that he would wish to see these phased in from 2021 onwards.

1.2 Impact Assessments

Equality and Rural Needs Assessment

Equality and Rural Needs assessments have been carried out to consider potential impacts of the proposals within this consultation. We welcome any comments or views you may have in respect of our assessments. Copies of these assessments are available online at:

<https://www.daera-ni.gov.uk/consultations/consultation-departments-proposed-implementation-and-next-steps-btb-eradication-strategy-northern>

Business and Regulatory Impact Assessment

A partial Regulatory Impact Assessment (RIA) has been carried out to consider the potential impacts of the proposals on business. Some proposals, such as those with regard to finance and badger intervention, will require a further and more detailed consultation. A further RIA will be carried out at that point. We welcome, however, any comments or views you may have in respect of the partial RIA at this stage. A copy of the assessment is available online at:

<https://www.daera-ni.gov.uk/consultations/consultation-departments-proposed-implementation-and-next-steps-btb-eradication-strategy-northern>

Environmental Impact Assessment

An Environmental Impact Assessment (EIA) has not been carried out at this stage. For those proposals which could have an environmental impact, such as wildlife intervention, a second consultation, which would contain a more detailed analysis of the proposal would be carried out. An Environmental Impact Assessment will be conducted then. We welcome, however, any comments or views you may have at this stage.

Strategic Environmental Assessment

A Screening Report for a determination as to whether a Strategic Environmental Assessment (SEA) under the Environmental Assessment of Plans and Programmes (Northern Ireland) Regulations 2004 has also been completed. This assessment concluded that the bTB Eradication Strategy is likely to have significant effects on the environment and should therefore be subject to a SEA. The next stage will be to complete a SEA scoping to determine what significant effects may arise and what topics will be included within the SEA report.

1.3 Who we would like to hear from

Anyone may reply to this consultation. DAERA would particularly like to hear from: cattle/livestock keepers; land owners as well as land users; cattle/livestock associations; conservationists; veterinary surgeons/ associations; agricultural markets and auctioneers;

and anyone else with an interest in bTB control and eradication in Northern Ireland. The bTB Programme, including compensation payments, has cost around £40 million in each of the last three years. This is a major burden on the public purse and, as a taxpayer, you will have an interest in how these proposals will work towards eradicating bTB and reducing this expense.

1.4 How to make an enquiry

If you have any queries about this consultation please contact the Department of Agriculture, Environment and Rural Affairs, Animal Health & Welfare Division, TB/BR Policy Team:

Tel: 028 9052 5502

Email: TBBR.Policybranch@daera-ni.gov.uk

1.5 Responding to the Consultation

The public consultation on DAERA's proposed implementation and next steps of the bTB Eradication Strategy for Northern Ireland is open until **10 September 2021**.

A copy of the consultation document is available on the DAERA website at:

<https://www.daera-ni.gov.uk/consultations/consultation-departments-proposed-implementation-and-next-steps-btb-eradication-strategy-northern>

You can respond to this consultation online at the NIDirect consultation Hub - Citizen Space at:

<https://consultations.nidirect.gov.uk/daera/proposed-implementation-and-next-steps-of-the-btb-eradication-strategy-for-northern-ireland>

You can save and return to your responses while the consultation is still open.

Responses by email should be sent to: TBBR.Policybranch@daera-ni.gov.uk

Written responses will be accepted, although the aforementioned methods are preferable. Again, you should use the Consultation Questionnaire provided, as this will aid our analysis of the responses received. Please send your response to:

Bovine TB Consultation TBBR Policy Team
Animal Health & Welfare Division
Department of Agriculture, Environment and Rural Affairs
Ballykelly House
111 Ballykelly Road
Ballykelly
Limavady
BT49 9HP

Please ensure that consultation responses are submitted so as to arrive by the closing date of **10 September 2021**.

This consultation document should be read in conjunction with, and with reference to, the TB Strategic Partnership Group's (TBSPG) Eradication Strategy report which is available online at: [Bovine Tuberculosis Eradication Strategy \(daera-ni.gov.uk\)](https://daera-ni.gov.uk/bovine-tuberculosis-eradication-strategy).

A summary of responses to DAERA's consultation on its response to the TBSPG recommendations is available online at: [Microsoft Word - summary-of-consultation-responses-tbspg-interim-report \(daera-ni.gov.uk\)](https://daera-ni.gov.uk/microsoft-word-summary-of-consultation-responses-tbspg-interim-report).

Hard copies can be requested by contacting TB/BR Policy Branch on the above telephone number, address or email address.

While details of particular circumstances described in a response to a consultation exercise may usefully inform the policy process, consultation exercises cannot address individual concerns and comments, which should be directed to the relevant public body.

Confidentiality & Data Protection

Your response may be made public by DAERA and placed on the DAERA website as part of the consultation process. If you do not want all or part of your response or name made public, please state this clearly in the response by marking your response as 'CONFIDENTIAL'. Any confidentiality disclaimer that may be generated by your organisation's IT system will be taken to apply only to information in your response for which confidentiality has been specifically requested.

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information regimes (these are primarily the Freedom of Information Act 2000 (FOIA) and the Data Protection Act 1998 (DPA)). If you want other information that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, amongst other things, with obligations of confidence.

In view of this, it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

Part 2 - What we have done

2.1 Overview, context and progress to date

Bovine Tuberculosis (bTB) has a devastating impact upon our cattle industry and the Department is fully committed to taking steps towards its eradication from Northern Ireland. The considerable financial cost of the Programme, (~£40m/year), also provides a powerful incentive to achieve eradication as soon as possible.

This is in addition to the stark reality that a breakdown in a herd causes undue stress and hardship to our farmers, and that continuing high levels of bTB may be a future barrier to trade. Our current programme underpins the ability of NI's livestock sectors to trade with the EU and internationally. In 2018, NI had sales of processed food to external markets worth ~£4billion, of which external sales of milk and milk products were estimated to be worth ~£900 million, and external sales of beef and sheep meat products were just under [£1.3 billion](#). However, having left the EU, and with the UK seeking to strike new international trade deals, we are only too aware that sustained high levels of bTB may be a trade barrier, curtailing our agri-food industry's access to new markets.

Since the independent TBSPG publication of its report in 2016, "Bovine Tuberculosis Eradication Strategy for Northern Ireland", DAERA has taken steps to control bTB in Northern Ireland.

In 2015/2016, the Department, acknowledging the need to address the ongoing rise in bTB herd incidence rates, introduced a range of additional bTB Programme measures which included:

- **A more stringent interpretation of the single intradermal comparative cervical tuberculin test (SICCT test), the so called TB skin test;**
- **Improved disease surveillance at all cattle abattoirs;**
- **Increased application of the interferon gamma blood test for TB; and**
- **The rigorous enforcement of TB testing standards.**

Furthermore, in 2017/18 DAERA introduced additional measures relating to enhanced testing and actions to help improve biosecurity as follows:

- **A reactor quality assurance pilot was launched on 6 November 2017;**
- **A further tightening of the rules for interpreting TB skin test results in breakdown herds was introduced in early 2018;**
- **Introduction of an additional herd test for recently de-restricted breakdown herds considered to be a higher risk;**

- **Reducing the minimum number of reactors, which must be disclosed before Officially Tuberculosis Free (OTF) status is withdrawn from a herd; and**
- **The rolling-out of a biosecurity self-assessment checklist made available to farmers and vets.**

In the absence of a Minister, the Department consulted on its responses to the TBSPG recommendations on the way forward to eradicate bTB in Northern Ireland. Over 200 hundred responses were received.

The Department also completed the 5 year **Test, and Vaccinate or Remove (TVR)**¹ wildlife intervention research project and established the **TB Eradication Partnership (TBEP)**, an independent expert advisory body to assist the Department in formulating final recommendations for a Minister on the way forward.

The Minister has made the eradication of bTB a priority and, since coming into post, he has had the opportunity to consider the policy proposals developed by the TBSPG. These have been consulted on by the Department and, following further analysis, recommended to him for implementation.

The Minister has now decided that he intends to progress with a number of measures from 2021 onwards as the first stage of implementing a new Strategy to Eradicate bTB in Northern Ireland.

¹ [Search | DAERA \(daera-ni.gov.uk\)](#)

Part 3 - Step one - What we will do

3.1 Enhanced measures

The Department is pleased to announce a suite of measures as the first step in the new bTB Eradication Programme for Northern Ireland. These were previously consulted upon by the Department and there was general support for the proposals from across key stakeholders. The responses to the previous consultation can be viewed on [Department's website](#). It is intended that these will be implemented from 2021 onwards. They will not all commence at once, rather they will be scheduled in line with available resources, legislative amendments where required, and following engagement with stakeholders.

Your views are also sought on two additional matters within this part of the consultation. These are the criteria on which the use of the interferon gamma blood test would be required by the Department on a compulsory basis and a proposed piece of subordinate legislation to increase powers to test non bovines, in particular deer and camelids, in holdings where cattle are not present.

3.2 Management, Oversight and Partnership Working

In the Department's response to the TBSPG report, three recommendations were made for new governance arrangements. These aim to facilitate greater stakeholder input and engagement at a NI, sub-regional, and local level, each having specific responsibilities.

The three recommendations were:

- **Establishment of the TB Eradication Partnership (TBEP).**
- **Establishment of Regional Eradication Partnerships (REPs).**
- **Establishment of Disease Response Teams (DRTs).**

In June 2018, the Department delivered the first of these recommendations and established the TB Eradication Partnership.

One of its key roles is to provide independent expert advice to DAERA's Chief Veterinary Officer (CVO) and policy makers within DAERA on strategic and operational issues and it will have a role in monitoring progress in the implementation of the bTB Eradication Strategy.

The TB Eradication Partnership consists of a Chair and six members with an appropriate wide range of representatives, backgrounds and experiences relevant to driving forward the eradication of bovine TB in Northern Ireland; i.e.

- **An independent Chairperson.**
- **Two people representative of the Northern Ireland farming community.**

- **A person representative of the Northern Ireland processing sector.**
- **A person representative of nature conservation / environmental issues.**
- **A person with experience as a veterinarian delivering services to the farming industry in Northern Ireland.**
- **A person with a scientific background relevant to bovine TB.**

The TBEP has considered the policy recommendations developed by DAERA officials, as outlined in this consultation document which underpins the Department's drive to eradicate bTB in Northern Ireland, and has provided its initial assessment. These proposals build upon the recommendations made by the TBSPG and which were consulted upon by the Department in 2017, for which there was general agreement.

The Department will now proceed with the following:

- **Establish, in one area of Northern Ireland, the first of three Regional Eradication Partnerships (REP).**
- **Establish Disease Response Teams (DRTs), when and where required, and within the area covered by the first REP.**
- **In the medium term, set up two further REPs, with additional DRTs established within these, as required.**

Regional Eradication Partnerships would each have a specific focus on bTB eradication in their particular geographical region. The REP's key objective would be to work collaboratively and in partnership with Government and stakeholder representatives to effect the eradication of bTB in their area. They would also provide advice and feedback to the TBEP.

REP meetings would be attended by the relevant regional DAERA Veterinary Managers and a DAERA epidemiologist as necessary. It is envisaged that the TBEP would have a role in the selection of members to sit on the REPs. While members of the REPs should be representative of sectoral interest(s), they would be required to act in the public interest.

Specifically, the REP would, with regard to its specific region:

- **have an overview of disease incidence;**
- **monitor action and responses to control and reduce disease;**
- **examine the impact of disease risk factors and recommend appropriate control measures to DAERA and the TBEP as appropriate;**
- **review reports from local Disease Response Teams (DRTs) and recommend appropriate actions;**

- **report to the TBEP including recommendations for action to enhance control;**
- **disseminate information to stakeholders in relation to the implementation of the bTB Eradication Strategy; and**
- **provide a forum where key players can collaborate.**

Local Disease Response Teams would be formed on an ad hoc basis in response to a serious outbreak, repeated breakdowns in an area, or to deal with particular disease issues.

A DRT would be convened by a local DAERA Veterinary Manager and should provide an opportunity for local direct involvement in disease control. It would escalate issues as necessary to the relevant REP. These teams would provide the opportunity to share information on bTB breakdowns, response actions and options, seek local support and engagement to address the disease, protect other local herds and disseminate the most up-to-date information on disease outcomes in their locality.

These new governance structures will augment the role of the TB Eradication Partnership, providing a vehicle for input to the TB programme by key stakeholder groups, particularly the farming industry.

There is a perception that delivery of the TB programme happens largely to farmers rather than farmers and other key parties being able to influence the policy and strategy around that programme. Particularly at a local level farmers can feel distanced from the efforts to eradicate TB and are only engaged when they suffer a breakdown. These new engagement structures will address this.

REPs and DRTs will involve representatives from the farming industry working in partnership with veterinarians, DAERA, TB scientific experts, environmentalists and other key stakeholders. These groups will at all levels have the principles of active participation by all, a focus on disease eradication, a remit to influence policy and disease control at a NI level and be independent of government.

3.3 Enhanced cattle measures and testing

It is essential that cattle infected with bTB are detected and removed from herds as quickly as possible. A key objective of the bTB programme is to minimise the potential for bTB to be transmitted, both within infected herds and from infected to uninfected herds.

The Department intends to implement seven recommendations relating to surveillance, testing, cattle movement and the re-stocking of breakdown herds, including a new measure relating to the introduction of legislation to enable the TB testing of non-bovines (e.g. deer and camelids), where required, on holdings where cattle are not present.

3.3.1 The increased use of interferon gamma testing

The interferon gamma test (IFN-g) is a supplementary diagnostic test that is currently used alongside the tuberculin skin test in selected bTB breakdown herds to increase the likelihood of detecting remaining bTB infection in the herd. Current testing capacity is 23,000 individual animal tests per annum, however, testing capacity will increase to 45,000 over the next three years. The test is currently offered on a voluntary basis. The TBSPG recommended that the Department makes it compulsory for herd keepers to permit the test to be carried out on their herds where it is considered necessary, and for all animals testing positive to be removed. The rationale being that this would be beneficial in identifying test positive animals at the earliest stage and removing these from the herd to prevent further infection. In addition, the new Animal Health Law (AHL) which came into effect on 21st April 2021, requires all animals that test positive to a bTB test to be removed. To implement the Department's recommendation in full, the Department proposes that the following criteria, which are broadly similar to the criteria used to offer the test on a voluntary basis, will be used to determine which herds will be selected for interferon gamma testing.

- IFN-g testing will continue to be conducted primarily in herds that have the status 'Officially Tuberculosis Withdrawn' (OTW) and are due a Restricted Herd Test (RHT) or First Restricted Herd Test (RH1).
- IFN-g testing is to be carried out on animals over the age of six months only. These are known as eligible animals.
- All eligible animals in the herd are to be tested, unless a veterinary risk assessment indicates that this is unlikely to be of benefit in controlling that bTB breakdown. For example, when certain groups are managed completely separately and present a negligible risk of having bTB infection. In such cases, 'at risk' groups only will be tested.
- Herds with multiple reactors at a single test are generally to be prioritised above those that fit other criteria. Within this criterion, we aim to conduct testing in order of where the disease risk is considered highest, for example, new breakdowns and herds with at least 4 or more reactors at a single skin test.
- On occasion, the Department may deem it necessary to 'de-couple' IFN-g sampling from the next skin test. For example, sampling may be carried out shortly after a positive skin test with multiple reactors to identify further infected animals as quickly as possible and remove them from the herd.
- The Department may also apply the IFN-g test at any stage in the testing cycle where atypical skin test results have been found or in any situation where there is suspicion of fraudulent activity.
- To inform decision making on a partial or total herd depopulation, for example, when a large or valuable group of non-reactor cattle are being considered for slaughter due to a high incidence of skin test reactors and/or multiple animals confirmed with bTB following lesions at routine slaughter (LRS).

- In herds with ongoing OTW breakdowns, that are not resolving despite serial skin testing at severe interpretation. LRS(s) animals that confirm with TB and contribute to the duration of such breakdowns may also be considered under this criterion. Priority will be given to herds with unresolved breakdowns lasting at least 18 months at first and as laboratory capacity increases, the length of the breakdown required to fit this criterion will be reduced.
- In herds with recurrence of disease shortly after resolving an OTW breakdown, indicating residual infection within the herd. For example, herds that disclose reactors at either the first or second Check Herd Test (CH1 or CH2) or disclose LRS(s) shortly after a clearance test.
- IFN-g testing may be carried out more than once over the course of a breakdown if the herd continues to fit the criteria, with prioritisation applied as above depending on the disease risk. As IFN-g testing resource is limited, herds that have not yet availed of IFN-g testing will generally be prioritised over those that have already tested, if the disease risk is similar.
- It will not be possible to apply the criteria uniformly throughout the year for logistical and capacity reasons due to seasonal testing patterns, with priority given to herds where the disease risk is considered greatest.

Exceptions/Exclusions

- Beef finishing herds which sell the majority of animals direct to slaughter are generally excluded from the IFN-g testing programme.
- The Department will assess herds with an atypical disease pattern on a case by case basis and may decide to exclude them from the routine IFN-g testing programme, especially when there is suspicion of fraudulent activity. As mentioned above, atypical herds may be subject to IFN-g testing at any stage in the testing cycle as a counter fraud measure.
- Herds with more than 250 'at risk' eligible animals (including associated herds) will usually not be sampled in the early stages of the compulsory IFN-g testing programme due to laboratory capacity constraints. As capacity increases in keeping with the proposals in the bTB eradication strategy, this upper herd size limit will increase and may eventually be removed. Larger herds may still be considered for IFN-g testing, especially if there is evidence of high levels of bTB infection within the herd, and they may be required to conduct sampling over two days.
- Herds with very small numbers of animals i.e. less than ten that fit the criteria for IFN-g testing may be more likely to be considered for depopulation than to undergo IFN-g testing. However, small herd size will not automatically rule out a herd and the Department may apply the IFN-g test in such cases.

The Department will:

- **Implement this recommendation in full in this financial year, including making the interferon gamma test compulsory where the Department deems it to be required.**

Q1. Do you agree with the criteria for selecting herds to receive interferon gamma testing?

3.3.2 Action on persistently infected herds

It is intended, working with TBEP and the farming industry, to develop criteria to define persistently infected herds and to develop a protocol for the application of a range of responses to deal with persistently infected herds. The 2016 TBSPG report identified 'chronic herds' as being an area worthy of specific action, which should include the development of a package of measures designed to minimise the impact of these breakdowns on bTB eradication. Previous research has indicated that up to 40% of all TB reactors are disclosed in persistently infected herds.

In particular:

The Department will:

Establish a working group of Departmental officials TBEP and industry representatives to:

- **Agree and define the criteria for persistently infected herds;**
- **Share these criteria with the industry; and**
- **Address related issues and develop additional tools to deal with persistently infected herds.**

3.3.3 Requirement for a herd test prior to re-stocking

This TBSPG recommendation noted that the Department was not in full compliance with EU Council Directive 78/52/EEC. This Directive required negative results on all animals over six weeks of age before allowing movement onto a farm following any disclosure of disease and an epidemiological assessment prior to re-stocking. The TBSPG recommended a phased implementation of this requirement.

However, as this Directive was replaced by the EU Animal Health Law (AHL) in April 2021, the legislative requirements regarding re-stocking are subject to change (for instance, the AHL also requires cleansing and disinfection to have been completed before re-stocking can take place). As the result of the changed legislative position, a veterinary opinion was sought on whether this recommendation required revision as it no longer needed to align with EU legislation in the first instance. In particular, the assessment examined whether a change in emphasis was needed from a herd test requirement prior to restocking to a more risk based approach.

This veterinary epidemiology paper recommended that a risk based approach, rather than one which is solely based on herd tests, would be preferred. It also recommended that appropriate cleansing and disinfection form part of this risk assessment prior to restocking being allowed. This would also ensure compliance with the changed legislative requirements as a result of the AHL.

The Department will:

- **Develop, in consultation with Stakeholders and TBEP, a risk based approach to permit restocking to take place following a breakdown.**

3.3.4 Allow limited moves from bTB breakdown herds under certain conditions

When a herd is restricted for bTB for an extended period, overstocking and cash flow difficulties can adversely affect the farm business. Movement restrictions are required by legislation and these laws exist to reduce the risk of disease spread from a breakdown herd to other herds. Alternative Control Herds are defined as non-grazing herds, which have adopted significantly enhanced biosecurity measures, meaning that reduced testing regimes can be used. More detailed information can be found on the DAERA website at this link: [Alternative control herds | Department of Agriculture, Environment and Rural Affairs \(daera-ni.gov.uk\)](https://www.daera-ni.gov.uk/alternative-control-herds)

The Department will:

- **Consider the introduction of limited moves from bTB breakdown herds to approved rearing/finishing herds, so called Alternative Control Herds (ACH), which are 100% housed and which meet defined, strict biosecurity conditions.**

In addition, the Department will:

- **In conjunction with the TBEP review its ACH policy and, working alongside the TBEP, consider what particular barriers there may be to uptake.**

3.3.5 Reactor quality assurance checks

It was recommended by the TBSPG that, following completion of the Reactor Quality Assurance (RQA) pilot scheme, the Department should consider further appropriate policy changes, which could include introducing a policy on bTB reactor quality assurance and further actions where fraud is suspected.

The RQA pilot has recently been concluded and its findings published. These findings will now be considered with a view to drafting protocols to deal with atypical responses to the tuberculin skin test.

The Department will:

- **Keep its procedures in relation to atypical reactions to the tuberculin test under review and, in conjunction with the TBEP, will continue to consider additional measures to counteract suspected fraudulent activity.**

3.4 Expansion of molecular techniques to support bTB eradication.

Strain typing is the characterisation of the bTB organism using techniques such as Variable Number Tandem Repeats (VNTR) and Whole Genome Sequencing (WGS). These techniques are evolving and have been the subject of Department funded research. Strain typing has the potential to provide more detailed epidemiological information, which will improve our understanding of the maintenance and spread of bTB.

Expanding the use of such molecular techniques could improve our understanding of transmission dynamics (cattle to cattle, badger to cattle, cattle to badger, and badger to badger). It therefore has the potential to inform wildlife intervention strategies.

The Department will:

- **Work with the TBEP and industry to expand the use of molecular techniques, drawing on DAERA/AFBI's set of molecular strain typing data gathered over 15 years.**

3.5 Provision for the testing of non-bovines

At present, the Department can only require non-bovine animals (for instance camelids and deer) to be tested for bTB where there are cattle on the farm holding. New legislation would enable non-bovines to be tested, where required, on holdings where cattle are not present and to compel the removal of infected animals. Testing would be required where the Department has evidence or reasonable suspicion that infection exists.

Similar legislation is in place in other jurisdictions. The TPSPG had recommended that the introduction of new legislation for non-bovines be kept under review. The Department believes that this should now be taken forward as part of the package of measures within the new bTB Eradication Strategy. This was a gap in the powers that the Department had to carry out testing where it deemed necessary or where there was a risk of bTB spread from non-bovines.

The Department will:

- **Work to introduce new subordinate legislation to enable such bTB testing of non-bovine animals to take place in holdings where no cattle are present, where the Department deems these to be necessary.**

Q2. Do you agree with this proposal to introduce testing of non-bovines as deemed necessary by the Department?

3.6 Herd health management and biosecurity improvements

Poor herd health management and lax biosecurity increases the risk of disease, impacts on farm health, productivity and costs, and ultimately adversely affects farm business profitability. It also increases the risk of disease spread to neighbouring herds. This theme of the Strategy aims to support and to encourage farmers to improve their trading and biosecurity practices to reduce the risk of herds becoming infected with bTB, as well as protecting against the risk of other diseases.

The Strategy proposes close cooperation with the farming industry and the TBEP to progress six recommendations to improve the management of herd health. These build upon the recommendations made by the TBSPG and which were consulted upon by the Department in 2017, for which there was general agreement. A further proposal regarding the introduction of herd classification should be kept under review. The six recommendations proposed are as outlined below.

3.6.1 Statutory improvement notices

Statutory improvement notices may be used where it is apparent that good herd health management practice is not being adopted voluntarily and is creating a risk to other neighbouring herds despite advice being provided. The introduction of this measure will require further consultation on the detail of the new legislation required to enable the Department to issue such notices. The Department will consider this through existing stakeholder forums.

The Department will:

- **Work with the farming industry and TBEP to develop and introduce statutory improvement notices to protect those herds that are at risk of disease spread from high risk groups within bTB breakdown herds.**

3.6.2 Encourage farmers to improve herd health management

The Department will work with farming bodies and vets to explore how all parties can collaborate to improve herd health. This proposal will also make full use of the new governance structures, outlined above, ensuring knowledge transfer. It is envisaged that tailored biosecurity advice to farmers will be delivered through Private Veterinary Practices, (PVPs) contracts.

The Department will:

- **Work with TBEP, industry, PVPs and the College of Agriculture, Food and Rural Enterprise (CAFRE) to develop an integrated approach to encourage improved herd health management on farms, and at marts and agricultural shows.**

3.6.3 Informed purchasing

There is currently no provision for sharing data on individual animal or herd disease status in NI. Provision of bTB (and possibly other disease) risk status information to prospective buyers would be a longer term aim of this recommendation. This would enable the buyer to make an informed decision regarding the health statuses of cattle when buying stock. The farming industry, live stock markets and TBEP will play a key role in the development of this.

The Department will:

- **Invite industry to lead in the introduction of an informed purchasing approach and will work with the TBEP to establish how this could be supported and progressed.**

3.6.4 Farm fragmentation and segregation notices

In Northern Ireland farms are generally organised around a main farm holding, with expansion often occurring through portions of land taken on short term lease known as conacre.

Conacre land is usually leased annually with no guarantee of renewal, making it difficult for the farmer leasing the land to justify potentially expensive modifications to improve bio-security, such as installing double fencing or other disease proof barriers. Farm fragmentation also means that there are likely to be regular animal movements from one area to another, with an associated risk of disease spreading more widely than would be the case if the farm was in a single land parcel.

It was widely acknowledged in responses to the previous DAERA consultation that current disease rates would potentially delay any moves to immediately implement the use of segregation notices. The introduction of this measure will require further consultation with stakeholders on the detail of any new notices.

These notices would be issued by DAERA staff and would specify where certain animals must be kept within a farm, thereby preventing the movement of high risk animals in breakdown herds to fields adjacent to other herds. There is already provision under brucellosis legislation to require, by legal notice, the segregation within herds of certain animals and also to require their detention in specific fields or housing. These powers are used where there is evidence of direct exposure to significant levels of infection, and compliance is monitored by regular inspection.

The Department will:

- **Work with industry to develop and introduce segregation notices as an additional bTB disease control measure.**

3.6.5 Genetic improvement

The selection of bTB resistant breeding material is regarded as a longer term objective in the Eradication Strategy and concerns the use of genetics to help farmers make informed decisions to breed cattle that have an improved resistance to bTB. Currently the TB Advantage genetic index is published by the Agriculture and Horticulture Development Board (AHDB), a UK levy board funded by farmers and growers and some other parts of the supply chain. A relatively new initiative, it is aimed to assist dairy farmers breed bTB resistant cattle.

The TBSPG noted the potential benefits of this developing field and the Department proposed that industry should lead to encourage a move towards inclusion of bTB resistance as a desirable trait in the selection of breeding material, supported through CAFRE's education and technology transfer programmes.

The Department will:

- **Support industry to encourage a move towards inclusion of bTB resistance as a desirable trait in the selection of breeding material, supported through CAFRE's established education and technology transfer programmes.**

3.6.6 Transport hygiene

Legislation requires that vehicles are cleaned and disinfected immediately after every transport of animals or of any product which could affect animal health, and if necessary before any new loading of animals, using officially authorised disinfectants.

TBSPG also noted the importance of cleansing and disinfection generally, and that farmers should thoroughly clean and disinfect vehicles and equipment after transportation of farm animals.

However, the key issue is ensuring that this legislative requirement is carried out, particularly given the difficulty in providing sufficient Departmental staff to carry out inspections. The Department therefore sought views on the role of industry in ensuring compliance with the legislative requirements to clean and disinfect vehicles. There was broad support for this in consultation responses.

The Department will:

- **Work with industry to ensure that vehicles, which make regular or return visits to markets, are properly cleaned and disinfected before and after use, in line with current regulations, to prevent disease spread.**

3.7 Actions on Research

This proposed bTB Eradication Strategy is science-led. Scientific evidence underpins all of the recommendations and further research into bTB remains a priority for the Department given the significance of the disease. The Department works closely with the Agri-Food and Biosciences Institute (AFBI) on key bTB related research projects which seek to deepen our understanding of the disease. In particular, how to test for it, how to isolate it and how it spreads and how to prevent it, make us and industry better able to eradicate it. We continually engage with colleagues from other jurisdictions to share expertise and awareness of ongoing research. In 2020/21 the departments spend on bTB research was approximately £0.45 million. It is very important that the Department's approach to bTB eradication continues to be science-led and utilises robust evidence to eradicate bTB in the NI cattle population.

A new Science Strategy for the Department is also in development. This will include a review of how bTB related research is commissioned.

The Department will:

- **Ensure the TBEP is a significant stakeholder in the research agenda.**
- **Develop procedures that will allow the TBEP to be formally recognised as a significant stakeholder in the research programme.**
- **Develop procedures that will allow the TBEP to be proportionally involved in the identification, commissioning and dissemination of bTB research.**

Part 4 - What we could do

Badger intervention

4.1 Rationale for intervention

The Godfray Report - Bovine TB Strategy Review October 2018; ([A strategy for achieving Bovine Tuberculosis Free Status for England: 2018 review - GOV.UK \(www.gov.uk\)](#)); concluded that the presence of infected badgers poses a threat to local cattle herds. This conclusion reflected the broad consensus amongst epidemiologists who have studied the disease. Reducing the threat, by culling or non-lethal intervention, will thus help lower the incidence of the disease in cattle. The Department therefore accepts that some form of intervention is necessary to break the cycle of infection transmission between badgers and cattle, and that action to address this risk must be part of any overall bTB Eradication Strategy.

The long-term aim is to vaccinate badgers in order to reduce both intra-species and inter-species spread and to support a healthy badger population.

However, the Department believes that it is necessary to reduce the infection load in the badger population first in order to enable follow-up vaccination to be effective. This is consistent with veterinary and scientific advice that badger culling in high cattle TB incidence areas, where badgers are implicated as a reservoir of infection, will reduce the weight of bTB infection in badger populations more quickly than vaccination alone. It will therefore have a greater and more immediate beneficial impact on the incidence of infection in cattle.

On the basis of the independent scientific reports which underpinned their considerations, the TBSPG recommended that a badger control policy should be implemented to reduce the overall level of infection and should include the culling of badgers in areas of high levels of bTB in cattle, with mitigating action to prevent perturbation, paving the way for badger vaccination. The intervention proposed was a proactive cull to reduce the bTB infected badger population in areas of high levels of bTB in cattle, combined with a test, and vaccinate or remove (TVR) approach in a buffer ring around the cull zone to mitigate the risks of a perturbation effect impact on cattle herd incidence in adjacent areas.

Consultation on the Department's response to the TBSPG recommendations asked four questions and a summary of responses can be found here; ([Consultation on the Department's response to TBSPG recommendations to eradicate bTB in NI - July 2018.pdf \(daera-ni.gov.uk\)](#)).

As part of the business case development, policy review and potential operational delivery, a number of high level options were considered to control the disease in badgers.

These were:

Option A: Non-selective cull, followed by vaccination.
Option B: Selective Cull, via Test, Vaccinate or Remove (TVR), followed by vaccination.
Option C: The TBSPG's recommended approach - non-selective cull in a core area, with a simultaneous Test, Vaccinate and Remove approach in a buffer ring area (to mitigate any potential perturbation effect risks).
Option D: Vaccinate only i.e. vaccinate badgers caught throughout the intervention period.

From this list, options C and D were discarded:

The buffer ring element of the **TBSPG's cull proposal, (Option C)** is not proposed. No evidence of perturbation has been reported in the Republic of Ireland (RoI), nor were there significant changes to badger ranging behaviour during the five year DAERA TVR research project.

Scientific evidence would suggest that the **vaccination only, (Option D)** approach would not be effective in reducing cattle bTB incidence rates within a realistic timeframe unless preceded by some form of cull to reduce the overall disease load.

Therefore, the options considered by the Department were reduced to either a non-selective cull, or a selective cull using TVR, both followed by a period of vaccination alone.

Intervention period

In the business case a period of approximately seven years of selective/non-selective culling, followed by eight years of badger vaccination alone was assumed for costing purposes.

However, operationally it is probable that the period for the selective/non-selective cull and for follow-up vaccination will vary. It is likely that culling would take place initially for four years, during which ongoing monitoring of disease incidence or prevalence in both species would take place. This non-selective cull period may need to be extended subsequently if deemed necessary.

Scale of Intervention Area

Strict criteria would be applied to select those areas where badgers were playing a significant role in the maintenance of bTB in the cattle population. Such criteria would include:

• the existence of well-established large cattle bTB hotspots;
• higher than average badger social group density;
• physical boundaries which would limit badger ranging behaviour; and
• local veterinary epidemiological assessment.

A previous assessment using these criteria identified eight separate areas, totalling approximately 1,200 km². This is equivalent to approximately 12% of the total agricultural land area in Northern Ireland. This exercise would be refreshed immediately prior to the commencement of any intervention, and periodically thereafter.

4.2 Other jurisdictions

To determine the best approach for NI, the Department looked to other jurisdictions who consider that they have implemented successful badger interventions as part of their bTB eradication programmes. Both England and the RoI have used non-selective badger culling to reduce infection in badger populations and prevent spread to cattle, but employ different culling methods.

England

Non selective culling in England is carried out by licenced, not for profit, cull companies set up and paid for by farmers. Prospective cull areas are identified by the companies themselves but must be within the High Risk or Edge areas of England, and must meet certain criteria. Although the cull is primarily funded by farmers, government pays for licencing, monitoring and policing. Government also contributes indirectly to some of the training costs. The predominant cull method is the controlled shooting of free roaming badgers, complemented by cage trapping and shooting. The cull company is required to deploy the method most suited to the circumstances.

Republic of Ireland

Non selective culling is carried out in the RoI. Culls are centred on and around those bTB breakdown farms where the breakdown is believed to have been caused by infected badgers. The RoI uses stopped restraints as the badger capture method, trapped animals are then dispatched by shooting. The restraints comprise an anchored steel wire loop, which is fitted with a stop so that it cannot close beyond a minimum circumference thus preventing overtightening. The restraints are anchored via a short chain to enable badger movement and a swivel is fitted to reduce the degree of cable twisting.

The cull is paid for and overseen by government and delivered by private contractors.

4.3 Intervention window

An important consideration in relation to the options discussed below is the time period within which badger intervention may take place. In practice, culling is impractical over the summer months regardless of the method used because of vegetation growth.

Northern Ireland

The NI intervention window, or open season, runs from 01 July to 30 November. It has been in place for over 30 years and falls under the policy remit of the Department's Northern Ireland Environment Agency (NIEA). The start date of 01 July is based on evidence that sows tend to give birth from mid-January to mid-March, with a weaning period of around 12 weeks. The end date of 30 November is intended to prevent disturbance to pregnant sows from December onwards.

The current NI intervention window would particularly impact on the efficacy of stopped restraints as a capture method. This is because younger badgers may not attain the necessary weight and size to be caught by a stopped restraint until at least the end of September. They would therefore be more likely to escape from restraints if deployed before that date. Extending the open season past 30 November would be potentially beneficial regardless of the method of capture selected. This is because the wider the intervention window, the more likely it is that a sufficient number of animals will be captured. This would increase the rate by which the overall badger infection load in an area was reduced, which in turn would potentially allow an earlier date for the switch to a vaccination only policy.

Republic of Ireland

The RoI allows badger intervention to take place in new intervention areas from the beginning of April through to the end of January. Intervention is permitted all year round in areas where an intervention has previously taken place.

England

England has different intervention windows depending on the nature of the intervention and type of capture method deployed. These are:

• Cage trapping and shooting	1 June to 30 November
• Controlled shooting	1 June to 31 January
• Cage trapping for the purpose of vaccination	1 May to 30 November

In England, culling must be carried out as a sustained effort over a period of approximately six weeks, and typically takes place in the autumn. Cage trapping and shooting is not permitted after 30 November in order to reduce the risk of trapped badgers suffering exposure due to severe weather. However, the controlled shooting of free roaming badgers can continue until the end of January. Shooting cannot recommence before 1 June to reduce the risk of dependent cubs being left underground to suffer starvation as a result of nursing females being culled. Badgers can be trapped, vaccinated and released during May.

4.4 Options for a badger intervention - What the Department could do

The Business Case, which underpins the bTB Eradication Strategy considered a range of badger intervention options, listed below, all of which would be followed by a period of vaccination alone. All of these options would reduce the overall bTB infection load in the badger population. In terms of the analysis it was assumed that intervention options would be delivered either by a private sector or by a farmer led body. In addition intervention would be implemented only in those areas, which have been specifically identified by DAERA as being suitable for intervention, (see also section 4.7.2). In any event the total area over which intervention would take place would not conflict with the protection afforded to protected species under the Bern Convention. In brief, the total intervention area would not at any one time exceed 30% of the total agricultural land area in Northern Ireland; [InstantAtlas™ Report \(nisra.gov.uk\)](#).

- a) Non-selective cull using baited cages/shooting.**
- b) Non-selective cull using stopped restraints/shooting.**
- c) Non-selective cull using controlled shooting.**
- d) TVR based selective cull using baited cages.**
- e) TVR based selective cull using stopped restraints.**

4.4.1 Non-selective cull

The aim of a non-selective cull is to lower the badger population density in order to reduce the overall infection load in badgers, and thereby reduce the bTB incidence in cattle. Both bTB infected badgers and healthy badgers would be removed.

This method has been deployed in both England and the RoI.

a) Proactive non selective cull using baited cages / shooting

Baited cages were deployed in Northern Ireland during the five year TVR research project. Expertise in their use therefore exists here.

These cages are dug into the ground near badger setts and other areas showing evidence of badger activity. Bait is placed in the cages each night for approximately 8-10 nights to encourage badgers to enter them. During this period the cages are left open. Over the following four nights, the cages are 'set to close' to trap any badgers that enter. They are checked early each morning and any captured badgers are dispatched by shooting carried out by a trained marksman. The badgers are not exposed to predators whilst trapped and the cages are suitable for the capture of badgers of all sizes/ages.

However, as cages are heavy requiring vehicles and trailers for their deployment and also require pre-baiting for several nights, they are more expensive and logistically more difficult to deploy than other trapping options. In addition, expert opinion suggests that 10-13% of badgers may be cage shy.

b) Non-selective cull using stopped restraints and shooting

This means of capture has not previously been deployed in Northern Ireland but has been in use in the RoI for a number of years. Any deployment would therefore initially rely on the field experience gained through stopped restraint deployment by the Department of Agriculture, Food and the Marine (DAFM) in the RoI.

Stopped restraints are less resource intensive to deploy than cage traps as no baiting or pre-baiting activity is required. In the ROI badgers are captured in stopped restraints and then despatched by shooting. The problems associated with the trapping of 'cage shy badgers' are avoided when using stopped restraints.

However, stopped restraints may not be as effective in trapping smaller, younger badgers due to the fixed minimum size of the restraint (which is set to not overtighten on adult badgers). As discussed above, the current NI intervention window (1st July to 30th November) would particularly impact the efficacy of stopped restraints as the capture method. This is because younger badgers may not have attained the necessary weight and size to be caught by a stopped restraint until at least the end of September.

c) Non-selective cull using controlled shooting

This method of culling has not previously been piloted or deployed in Northern Ireland, therefore in the early stages of its implementation DAERA would need to draw on the field experience gained by DEFRA/Natural England through its use in England.

Culling by controlled shooting of free roaming badgers is the predominant method used in England, complemented by cage trap shooting where appropriate. The level of competence in rifle marksmanship required in this context is considered to be equivalent to that for the Deer Stalking Certificate Level 1 qualification and, in addition, all persons shooting badgers under approval must have received authorised training on the humane shooting of badgers.

4.4.2 Selective cull using Test, Vaccinate or Remove (TVR)

The TVR approach involves capturing badgers, anaesthetising them in order to obtain a blood sample, testing that blood for bTB using a sett-side test (the Dual Path Platform (DPP) test) and, following the result (approximately 30 minutes later), vaccinating and releasing test negative badgers or culling test positive badgers by lethal injection.

TVR has not yet been deployed anywhere as a means of wildlife intervention. From first principles, this approach should deliver benefits as it enables the removal of bTB test positive badgers specifically while protecting the uninfected badgers captured by vaccination. Its efficacy data is based on modelling by the Animal and Plant Health Agency (APHA), which concluded that both an initial proactive non-selective cull and a TVR based intervention could reduce the overall badger infection load and pave the way for a vaccination only approach.

DAERA carried out a five-year TVR intervention research study in a 100km² area. This study concluded that TVR as a methodology, can be practically deployed. No evidence of increased ranging behaviour by badgers (perturbation) was observed during the study. This would indicate that deployment of TVR in Northern Ireland should not result in a perturbation effect, that is to say a local increase in the incidence of bTB in cattle as a result of the intervention.

d) TVR based selective cull using baited cages

In this option, badgers are trapped using baited cages as described above. Following 'trap' nights, the cages are checked early the following morning and any captured badgers are anaesthetised and tested for bTB. Those which test negative are vaccinated and released, and those which test positive are culled by lethal injection.

e) TVR based selective cull, using stopped restraints

In this option, badgers are captured using stopped restraints. Animals captured are then further restrained using a dog catching pole. This allows an anaesthetic to be safely administered, and the animal then blood tested for the presence of bTB infection. Those which test negative would be vaccinated and released, and those which test positive would be culled by lethal injection. This method has not been previously piloted or implemented in Northern Ireland. The RoI does not carry out TVR, however, it does use a similar combination of restraints and anaesthesia to safely vaccinate badgers. Any deployment would therefore rely on field experience gained by DAFM in the RoI.

As discussed above, stopped restraints are less resource intensive to deploy than cage traps. The problems associated with the trapping of 'cage shy badgers' are also avoided when using stopped restraints.

However, stopped restraints may not be as effective in trapping smaller, younger badgers within the current badger intervention window in Northern Ireland.

4.5 Options for delivery

The Department is committed to delivering a badger intervention which takes into account effectiveness, efficiency, animal welfare and value for money. It has investigated different delivery methods already being applied in other jurisdictions. **There are three possible approaches:**

a) Delivery directly by DAERA staff and paid for by government.
b) Delivery by the private sector following a tender process, paid for by government. Delivery would be managed and monitored by DAERA similar to what occurs in the RoI.
c) Delivery by "not for profit" cull companies set up and paid for by farmers, operating under approvals issued by DAERA. Delivery would be managed and monitored by DAERA. This is similar to what happens in England.

Under each delivery option, there are also different funding options. Either Government or farmers could pay the deployment costs, or these could be shared.

a) Delivery of the intervention using DAERA staff

This delivery method would enable DAERA to tightly control delivery. DAERA staff would identify the intervention areas and also provide the staff required to carry out all activities associated with the badger intervention.

However, from the information available on public versus private sector wage rates ², the cost of deploying DAERA labour is likely to be higher than the cost of Government procurement of private sector labour. This, therefore, would be the most expensive deployment option, and could have resource implications for other important functions that require DAERA veterinary staff. Logistically it could also be difficult to manage as both personnel and equipment would only be required during the intervention window and would have to be stood down, or found other seasonal work, outside of this window.

b) Delivery by the private sector, paid for by Government, with DAERA management

In this option DAERA would also identify the intervention areas, and then contract a private body to deliver the intervention. Private sector providers would provide operational delivery, and DAERA would provide oversight and quality assurance.

This would be a similar approach to that used in the RoI where a private company carries out the cull under DAFM oversight.

Through a process of government procurement this has the potential to result in a more cost effective option than one using DAERA staff. It also has the benefit of being a more flexible deployment model than option a) in view of the intervention window, though less flexible than option c). The timescale for procurement is estimated to be between 6-9 months.

c) Delivery by cull companies set up and paid for by farmers, managed and monitored by DAERA.

In this approach farming bodies, or specifically established farmer-led 'not for profit' companies, following an assessment process would be authorised by DAERA to deliver badger intervention in areas identified by DAERA. Farmers, if qualified, could carry out operations themselves, or source suitably qualified labour for the tasks involved. Cull companies would be required to provide evidence that they have sufficient funds secured to deliver the full period of the cull and that they have access agreements from landowners in the intervention area. Operatives would be required to demonstrate competence in the field operations detailed in the badger intervention method approval. DAERA would monitor and check competence, and provide oversight to ensure best practice.

This would be a similar approach to that deployed in England where farmer led cull companies pay for and deliver the cull under a licence. This is a highly flexible and cost effective model, which could be scaled up in order to address emerging bTB hotspots. It also provides opportunity for farmers to become directly involved in wildlife intervention in their local area if identified for intervention.

² NISRA publication: Annual Survey of Hours and Earnings.

From the business case analysis of these options, the option of using public sector labour for wildlife intervention deployment was not considered further because of its higher cost, and logistical issues. This is consistent with the approaches in ROI and in England; neither of these use public sector labour for badger removal interventions.

4.6 Cost of intervention options

The tables below outline the economic costs of each badger removal option shortlisted, assuming a seven year badger removal intervention, and assuming a 1200km² intervention area (although, note, that both of these figures are indicative only for costing purposes). Private sector labour (paid for by government), is assumed for all shortlisted options, except for controlled shooting, where the costs are based on those reported by DEFRA for their farmer-led delivery model (and include both the costs to government and farmers).

Generally, a selective cull is more expensive than a non-selective cull; and interventions requiring the use of cages are more expensive than those using stopped restraints.

Considering the initial badger removal intervention (i.e. over the first seven years of intervention), across an area of 1200km², delivery of a non-selective cull using controlled shooting paid for by farmers through a not for profit company, is the least expensive option by a significant margin. This is followed by private sector delivery, paid for by government, of a non-selective cull using stopped restraints. The third least expensive option is private sector delivery paid for by government of a selective cull using stopped restraints.

Table 1 Estimated cost of an initial seven year badger non selective cull intervention over 1200km² (economic costs, in real (2020) prices, i.e. no inflation uplifts included)

Method	a) Cage Trap & Shoot Cull	b) Restraint Trap & Shoot Cull	a) Controlled Shooting
Intervention deployed by:	Private sector under contract to Government	Private sector under contract to Government	Private: Farmer-led
Badger capture and treatment	~£24.8m	~£8.0m	~£3.8m
Badger removal, PM, Disposal	~£1.2m	~£1.2m	~£1.2m
DAERA oversight costs	~£9.0m	~£9.0m	~£9.0m
Total cost per 1200km² area	~£35.0m	~£18.2m	~£14.0m

Table 2 Estimated cost of an initial seven year badger selective cull via ‘TVR’ intervention over 1200km² (economic costs, in real (2020) prices, i.e. no inflation uplifts included)

Method	d) Cage Trap & TVR	e) Restraint Trap & TVR
Intervention deployed by:	Private	Private
Badger capture and treatment	~£27.0m	~£10.9m
Badger removal, PM, Disposal	~£0.6m	~£0.6m
DAERA oversight costs	~£9.0m	~£9.0m
Total cost per 1200km² area	~£36.6m	~£20.5m

4.7 Legislation and regulatory concerns

To bring forward a wildlife intervention the Department intends to exercise its powers under Article 13 and 47 of the Diseases of Animals (Northern Ireland) Order 1981 [1981 No. 1115 (N.I. 22)] to make subordinate legislation to remove badgers, in an area that the Department may specify.

To make an Order under Article 13 “Power to destroy wildlife”, DAERA must demonstrate that it is satisfied, in the case of any area:

“That there exists among the wild members of one or more species in the area a disease, other than rabies, which has been or is being transmitted from members of that or those species to livestock of any kind in the area; and

That destruction of wild members of that or those species in that area is necessary in order to eliminate, or substantially reduce the incidence of, that disease in livestock of any kind in the area.”

It is the Department intention to use Article 47 to authorise individuals from the private sector to deliver the cull on its behalf.

4.7.1 Article 13 Order

Therefore to carry out a badger intervention to reduce the role of badgers in the maintenance and spread of bTB disease in cattle, DAERA must demonstrate that:

- **The disease exists in badgers in the area under consideration;**
The Department intends to use evidence from the Road Traffic Accident survey to confirm the presence of bTB infection in badgers within the proposed intervention area.

- **The disease is being transmitted from badgers to cattle; and**
The Department believes that there is sufficient evidence to demonstrate the transmission of bTB between badgers and cattle. Strain typing undertaken by the Department has found that badgers and cattle in a locality often share the same strains of bTB.
- **The removal of badgers is necessary to eliminate or substantially reduce the disease in cattle.**
The Department will determine in which areas badgers may be playing a significant role in the maintenance of bTB in cattle before proceeding to make an Order. In doing so it will take account of local cattle, badger and bTB data.

4.7.2 Area Selection

DAERA must introduce separate subordinate legislation for each intervention area.

In addition to the Article 13 of the Diseases of Animals (Northern Ireland) Order 1981 further states that the Department may after consultation with the NI Environment Agency (NIEA) and subject to the following provisions of this article, by order, provide for the destruction of wild animals in that area.

An Order under this Article must specify the area to which it applies, the disease to which it applies and the one or more species to which it relates. It is proposed that a map clearly outlining the intervention area would illustrate the area to which each order applies.

4.7.3 Selection of Intervention Area

All badger intervention areas identified are envisaged to be approximately 100km² or greater. This was the minimum area size identified by the TBSPG report and is similar to the approach employed in England.

It is based on the conclusions of the Randomised Badger Culling Trial (RBCT)³ in Great Britain and on APHA modelling.

It is proposed that the Department will use a number of criteria to determine if an area is suitable for intervention. These will principally include:

The size of each individual intervention area will be determined by a number of factors including the existence of natural disease barriers. It is proposed that the Department will use a number of criteria to determine if an area is suitable for intervention. These will principally include:

Evidence of prolonged high levels of bTB herd level infection.

Evidence of above average badger social group density.

Evidence of bTB infection in the local badger population.

Local epidemiological information.

Physical disease barriers - rivers, major roads.

³ [Bovine TB \(nationalarchives.gov.uk\)](http://nationalarchives.gov.uk)

4.8 Rationale for the preferred badger removal approach (i.e. to pave the way for follow-up badger vaccination)

The Business Case underpinning the bTB Eradication Strategy explored different methods of reducing the disease in badgers prior to a vaccination-only intervention. It also investigated the delivery methods applied in other jurisdictions, concluding that three possible approaches were; delivery by DAERA staff, delivery by the private sector under contract to government, following a tender process managed and monitored by DAERA as occurs in the RoI or, delivered by farmer-led companies authorised and monitored by DAERA as occurs in England.

The wildlife intervention options described above were considered in the business case alongside other bTB eradication programme proposals. The options for TB programme enhancement were listed in the business case as follows:

Option 1: Do Nothing;
Option 2: Status Quo - continue with the current programme;
Option 3: Programme Enhancements without wildlife intervention (WL);
Option 4: Programme Enhancements with WL - Non-Selective Cull using baited cages, paving the way for vaccination, delivered by the private sector under contract to government;
Option 5: Programme Enhancements with WL - Non-Selective Cull using restraints, paving the way for vaccination, delivered by the private sector under contract to government;
Option 6: Programme Enhancements with WL - Selective Cull (TVR) using cages, paving the way for vaccination, delivered by the private sector under contract to government;
Option 7: Programme Enhancements with WL - Selective Cull (TVR) using restraints, paving the way for vaccination, delivered by the private sector under contract to government;
Option 8: Programme Enhancements with WL - Non-Selective Cull using controlled shooting as the predominant badger removal method (as in England), paving the way for vaccination, delivered by farmer-led companies.

Having taken into account strategic fit, costs and benefits, including sensitivity analyses on such; other non-monetary issues; and risks; the preferred option was identified as:

Option 8: Introduce the other Programme Enhancements outlined in this consultation along with Wildlife Intervention. Wildlife intervention would be in the form of a non-selective badger cull using controlled shooting of free roaming badgers, as the predominant badger removal method, delivered and paid for by farmer led companies.

Q3. Do you agree with the Department's preferred option?

4.9 Sustainable funding arrangements for the bTB programme

The TBSPG considered a range of options to identify potential new sustainable arrangements which would address the impact that the bTB Programme places on public finances. The finance and funding objectives were to rebalance the costs of the disease between the public and private sectors and by so doing encourage cultural and attitudinal changes, incentivising herd keepers to fully embrace the role they have in protecting their herd from bTB.

The options considered by the TBSPG to help deliver these objectives included: the introduction of a levy; herd keepers paying for some or all bTB tests; herd keepers paying directly for wildlife intervention; and changes to the compensation arrangements. The TBSPG concluded that the most important change would be to introduce a compensation cap and reduce the current bTB compensation arrangements. Having re-analysed funding options, DAERA agreed with this conclusion, and also sees significant advantages to adopting England's farmer-led and co-funded wildlife intervention arrangements.

4.10 Proposed funding arrangement for the initial badger removal intervention of controlled shooting

As discussed above, the preferred badger removal option to pave the way for follow-up vaccination of 'controlled shooting' is currently in operation in England. There, government and farmers both pay towards its implementation. Government pays for licensing, elements of training, mentoring, advice and monitoring, and farmers pay for 'on the ground' deployment expenses. The low implementation costs published by DEFRA highlight that having farmers lead on securing labour for operational requirements across their own and neighbouring land results in a cost efficient approach. In addition to this cost advantage, the English farmer led and funded deployment model provides an opportunity for farmers to be directly involved in tackling another of the disease transmission risks and, importantly, it offers significant flexibility and scalability. These advantages are critical to tackle a disease such as bTB which will emerge as disease "hot-spots" across different areas of NI over time.

The proposal on funding wildlife intervention in NI is, therefore, that government would pay for administration, elements of training costs, mentoring, advice and monitoring (including post mortem inspections, as required) and farmers would pay for deployment expenses, as is the case in England.

Q4. Do you agree with the Department's preferred funding model for wildlife intervention?

Compensation payments

4.11 Rationale for compensation change

The TBSPG considered a range of options to identify potential new sustainable arrangements which would address the impact that the bTB Programme places on public finances. The finance and funding objectives were to rebalance the costs of the disease between the public and private sectors and by so doing encourage cultural and attitudinal changes, incentivising herd keepers to fully embrace the role they have in protecting their herd from bTB.

The options considered by the TBSPG to help deliver these objectives included the introduction of a levy; herd keepers paying for some or all bTB tests; herd keepers paying directly for wildlife intervention, and changes to the compensation arrangements.

Introduction of a bTB Levy

The Department has previously considered introducing a levy as part of our consultation in 2017 on our response to the TBSPG recommendations, as a means of contributing to the cost of the bTB programme as an alternative to changing the current compensation regime. There are currently two levies in place in the agriculture industry in Northern Ireland:

The Dairy Council for Northern Ireland has a voluntary levy from its members in place on milk produced and milk processed. The levy is used to fund projects relating to the local dairy industry;

Since 2003, the Livestock and Meat Commission for Northern Ireland (LMC) has collected statutory levies from beef and sheep producers and slaughterers in Northern Ireland to provide a range of services to the red meat industry.

In the Republic of Ireland, farmers and industry have been subject to levies collected as a result of the Bovine Disease Levies Acts of 1979 and 1996.

While a levy similar to that established in the Republic of Ireland could potentially provide an important source of revenue to help fund the new measures proposed, the Department does not believe that a levy would bring about the desired culture change and shared ownership of the disease that would come from an adjustment in compensation arrangements. Therefore, at this time, the Department is not proposing to introduce a bTB levy.

The proposal to introduce a compensation cap and reduce the current bTB compensation arrangements is in line with the 2009 Report of the NI Assembly Public Accounts Committee on the Control of bTB. It acknowledged that a share of the costs should be borne by the industry. It is also in line with the 2018 NI Audit Office (NIAO) report on Eradicating bTB in NI, which recommended full implementation of the Department's proposals to reduce the bTB Programme spend⁴.

The TBSPG proposed a cap on compensation of £1,500 for non-pedigree animals; £1,800 for pedigree animals and £3,500 for the removal of one pedigree stock bull per herd keeper each

⁴ [NIAO Bovine Tuberculosis report.pdf \(niauditoffice.gov.uk\)](https://niauditoffice.gov.uk)

year. Once the cap was in place and accepted, the TBSPG proposed that it should be reviewed, and that it should be followed by a compensation cut to 75% of the market value.

Based on the above, TBSPG's recommendation and the 2017 consultation responses, the Department has accepted the rationale and need for compensation change both to encourage behavioural change and to reduce the demand on the public purse. It has also accepted the principle of introducing a compensation cap and reduction in the rate of compensation from 100% of market value. DAERA believes that both of these changes should be introduced at the same time.

4.12 Changes that could be made to the compensation cap

The Department considers that an initial cap of £5,000 is a more appropriate level for a cap on compensation.

Setting a cap at this higher level balances the concerns of the industry that the original TBSPG recommendation was too low, with the overall need for a new shared approach to the eradication of bTB, encouraging herd keepers to take all reasonable steps to prevent disease in their herds. This approach recognises the challenges facing the industry due to the current high disease rates, acknowledges the consultation responses and the sensitivity of pedigree breeders to a compensation cap. Although this cap would have limited impact on cost savings;

If applied in 2019/20 it would have saved approximately £104,500 and affected less than 0.09% of all herd keepers [21 herd keepers]

It is felt that it would still be effective in changing mind sets by removing the assumption by herd keepers that the tax payer would act as an unlimited safety net. A compensation cap at this level is also a disincentive to high value pedigree cattle fraud.

The proposed compensation cap is the same as that set by the Welsh Government and that which was consulted upon by both the Scottish Government and DEFRA in 2017. Scotland has implemented a cap of £5,000 for non-pedigree and £7,500 for pedigree bovines . England has not, to date, introduced a compensation cap, however, DEFRA operates a table based animal valuation system with compensation is based on the average market price for the specific bovine category on the relevant date. Information on compensation regimes in other jurisdictions is attached at **Annex A**.

The Department considers a uniform cap to be the fairest method of spreading costs and proposes the introduction of a £5,000 cap.

Q5. Do you agree with the Department's proposal for the introduction of a £5,000 cap on compensation?

4.13 Changes that could be made to compensation levels

The TBSPG recognised that, in order to change culture, stakeholder buy-in had to be achieved. Therefore, they recommended that the cap on compensation be introduced first and its impact reviewed before compensation reduction was introduced. The Department in autumn 2017, consulted on the proposal that the Department should introduce a reduction of 10% to the compensation rate (currently set at 100%) in year one, and a further 15% reduction in year two. This means that compensation would reduce to 90% of market value in year one, and 75% of market value in year two. A 75% compensation rate would align the bTB programme with the compensation regimes for other diseases, such as Brucellosis.

The compensation cap and reduction in the compensation rate were proposed to be introduced simultaneously for each compulsorily removed animal the Department envisaged paying the lesser of:

- the compensation value as derived by applying the compensation rate to each animal's market value; and
- the compensation cap for that category of animal.

The aim of this is to strike a balance between reasonable compensation and cutting costs, while encouraging herd keepers to take all reasonable steps to prevent disease. It seeks to create a sense of shared ownership and responsibility for eradication. Phasing the introduction of this measure should help herd keepers adjust to the new circumstances. These combined measures aim to promote equity and fairness across the industry. They would provide incentive to enhance biosecurity practices on farm, which will reduce the risk of infection re-entering herds and respect the interests of the taxpayer.

DAERA therefore propose that the rate of compensation payable should be reduced on a phased basis, with a reduction to 90% in year one, further reduced to 75% from year two. The maximum amount paid would be subject to the cap of £5,000 per animal removed.

This approach in relation to compensation reduction would also return the compensation rate to the pre-1998 rate which was 75%, and is similar to the compensation arrangements for brucellosis in place since 2012. In 1998 the bTB compensation rate was increased for a number of reasons including the lack of wildlife intervention, a factor which is now addressed by the proposed bTB Eradication Strategy. Table 3 below shows the percentage of animals that would be affected by the proposed changes.

Table 3 Percentage Reduction of 25% and cap of £5,000 applied to DAERA 2019/20 Compensation Profile

Category	Following 25% reduction in year 2 percentage of herd-keepers compensated in 2019/20 that would have been impacted by cap in 2019/20	Following 25% in Year 2 percentage of total herd-keepers in NI that would have been impacted by cap in 2019/20	Annual Savings to DAERA, savings with 25% reduction and subsequent cap (based on 2019/20 profile)
Non-Pedigree	0.12%	0.01%	£4,145,775
Pedigree	0.45%	0.05%	£804,946
All	0.49%	0.05%	£4,950,721

Figures based on 2434 compensated herd-keepers in 2019/20 and Northern Ireland herd-keepers totalling 23,627 in 2019.

The savings realised by these recommendations, £2.4 million with a 90% compensation rate and £5.9 million with a 75% compensation rate, based on the 2018/19 figures, would release money back to the public purse and would allow government to better deploy resources. However, as the bTB compensation fell 17.5% from 2018/19 to 2019/20, the indicative savings could also fall by around 17.5% to £2.0m with the 90% compensation rate and to £4.9m with the 75% compensation rate. As the Strategy progresses and the bTB rates reduce, the savings will reduce proportionally.

The Department proposes a compensation reduction to 90% in year one and then to 75% in subsequent years from the current 100% compensation level.

Q6. Do you agree with the Department's proposals for a reduction in compensation?

Part 5 - Summary

Table 4. What we will do

Thematic area	Sub theme	Document section	Actions
Management, Oversight and Partnership Working.		3.2	Establish the first of three Regional Eradication Partnerships (REPs) in one geographic area of Northern Ireland.
			Establish Disease Response Teams (DRTs), when and where required, and within the geographical area covered by the first REP.
			In the medium term, set up two further REPs to augment the work of the TBEP with further DRTs established as required.
Enhancements to Cattle Measures and testing.	The increased use of interferon gamma testing.	3.3.1	Implement this recommendation in full in this financial year, including making the IFNg test compulsory where the Department deems it to be required.
	Action on persistently infected herds.	3.3.2	Working with the TBEP, agree and define the criteria for persistently infected herds.
			Share these criteria with industry to ensure that there is clarity about transparency and culture change.
			Working with the TBEP, develop a protocol for a range of responses to deal with persistently infected herds.
	Requirements prior to re-stocking.	3.3.3	Develop, in consultation with Stakeholders and the TBEP, a risk based approach to permit restocking to take place following a breakdown.
Allow limited moves from bTB breakdown herds under certain conditions.	3.3.4	DAERA will, in conjunction with the TBEP, consider the introduction of limited moves from bTB breakdown herds to approved rearing/finishing herds, so called Alternative Control Herds (ACH), which are 100% housed and which meet defined, strict biosecurity conditions.	
			In conjunction with the TBEP DAERA will review its ACH policy and, working alongside the TBEP, consider what particular barriers there may be to uptake.

Thematic area	Sub theme	Document section	Actions
	Reactor quality assurance checks.	3.3.5	DAERA will keep its procedures in relation to atypical reactions to the tuberculin test under review. In conjunction with the TBEP, DAERA will continue to consider additional measures to counteract suspected fraudulent activity.
	Expansion of molecular techniques to support bTB eradication.	3.4	DAERA will work with the TBEP and industry to consider how best to expand the use of molecular techniques, where possible drawing on DAERA/AFBI's set of molecular strain typing data gathered over 15 years.
	Provision for the testing of non-bovines.	3.5	DAERA will introduce new subordinate legislation which would enable such bTB testing of non-bovine animals to take place where the Department deemed these to be necessary in holdings where no cattle are present, particularly in relation to alpacas and lamas.
Herd health management and biosecurity improvements.	Statutory improvement notices.	3.6.1	Statutory Improvement Notices will be issued to place a herd on 'Notice' when it is apparent that good biosecurity practice is not being adopted voluntarily and a farm business is, as a result, posing a risk to others.
	Encourage farmers to improve herd health management.	3.6.2	Increase the role of Private Veterinary Practices (PVPs) and the College of Agriculture, Food and Rural Enterprise (CAFRE), to encourage improved herd health management on farms, and at marts and agricultural shows, providing advice and embedding knowledge transfer to the industry.
	Informed purchasing.	3.6.3	The TBEP will work with industry on the introduction of an informed purchasing approach and the Department will work with the TBEP to best establish how this could be supported and progressed.
	Farm fragmentation and segregation notices.	3.6.4	Using findings from ongoing commissioned research, DAERA will work with the industry to develop and introduce segregation notices as an additional bTB disease control measure.
	Genetic improvement.	3.6.5	DAERA will support industry to encourage a move towards inclusion of bTB resistance as a desirable trait in the selection of breeding material, supported through CAFRE's established education and technology transfer programmes.

Thematic area	Sub theme	Document section	Actions
	Transport hygiene.	3.6.6	DAERA will work with industry to ensure that vehicles which make regular or return visits to markets are properly cleaned and disinfected before and after use to prevent disease spread in order to ensure compliance with current regulations.
Action on research.		3.7	<p>DAERA will ensure the TBEP is a significant stakeholder in the research agenda.</p> <p>DAERA will, in discussion with the TBEP, develop procedures that will allow the TBEP to be formally recognised as a significant stakeholder in the research programme.</p> <p>DAERA will, in discussion with the TBEP, develop procedures that will allow the TBEP to be proportionally involved in the identification, commissioning and dissemination of bTB research.</p>

Table 5. What we could do?

Thematic area	Sub theme	Document section	Actions
Wildlife.	Badger Capture Method.	4.4	a) Non-selective cull using baited cages/ shooting.
			b) Non-selective cull using stopped restraints/shooting.
			c) Non-selective cull using controlled shooting.
			d) TVR based selective cull using baited cages.
			e) TVR based selective cull using stopped restraints.
Wildlife.	Badger Intervention Delivery Method.	4.5	a) Delivery by DAERA staff.
			b) Delivery by the private sector following a tender process, with private sector delivery managed and monitored by DAERA as occurs in the RoI.
			c) Delivery by “not for profit” cull companies set up by farmer groups, operating under approvals issued by DAERA and managed and monitored by DAERA. This is similar to what happens in England.
Wildlife.	Badger Intervention Options.	4.8	Option 1: Do Nothing.
			Option 2: Status Quo - continue with the current programme.
			Option 3: Programme Enhancements without wildlife intervention (WL).
			Option 4: Programme Enhancements with WL - Non-Selective Cull using baited cages, paving the way for vaccination, delivered by the private sector under contract to government.
			Option 5: Programme Enhancements with WL - Non-Selective Cull using restraints, paving the way for vaccination, delivered by the private sector under contract to government.

			Actions
			<p>Option 6: Programme Enhancements with WL - Selective Cull (TVR) using cages, paving the way for vaccination, delivered by the private sector under contract to government.</p> <p>Option 7: Programme Enhancements with WL - Selective Cull (TVR) using restraints, paving the way for vaccination, delivered by the private sector under contract to government.</p>
Wildlife.	Preferred option.		<p>Option 8: Programme Enhancements with WL - Non-Selective Cull using controlled shooting as the predominant badger removal method (as in England), delivered by farmer-led companies.</p>
Finance and Funding.	Change in the compensation cap.	4.12	A uniform cap of £5,000.
	Change in the level of 100% compensation of the full market value of the animal.	4.13	<p>Reduction in year 1 of 10%.</p> <p>Reduction in year 2 of further 15%.</p>

Annex A - Compensation regimes in other jurisdictions

Country	Funding
England	<p>Compensation: 100% compensation based on Average Table Based Value for cattle removed (not individual animal value). This may mean that some farmers are over compensated and others under compensated for their actual losses, depending on the quality of their animal. Compensation is dependent on certain aspects of programme compliance⁵.</p> <p>Compensation cap: Consulted on £5k cap in 2017. Not implemented to date.</p> <p>Future cost sharing: In response to Godfray Report, DEFRA states that research will inform further work on options for compensation and increasing the accessibility of insurance cover. DEFRA envisage a compulsory insurance programme partially supported by government (replacing compensation) with premiums and compensation designed to incentivise and reward behaviour that reduces the risk of disease⁶. DEFRA's response also says "Drawing on input and advice from the Bovine TB Partnership, the Government will... continue to look at other cost-sharing options, such as the use of levies and fees/charges for statutory services delivered by government⁷."</p>
Wales	<p>Compensation: 100% market value (reductions for some aspects of non-compliance⁸)</p> <p>Compensation cap: £5,000</p> <p>Future funding considerations: In 2019, the Welsh Minister for Environment, Energy and Rural Affairs said a review of compensation was required as the £14m compensation bill in 2018/19 was unsustainable to the public purse. She said that any new regime needs to drive good farming practice whilst discouraging bad practice. Therefore, the Welsh Government has indicated that it will examine how to use compensation levels to assist in efforts to drive behavioural change. Full details on guidance on compensation payments in Wales can be accessed at Guidance notes - TB compensation (gov.wales).</p>

5 E.g. In England, reductions to compensation payments are applied to TB reactors found at tests that become overdue by more than 60 days after their due date. The percentage reductions applied are: *Overdue test by more than 60 days up to 90 days - 25% reduction; *Overdue test by more than 90 days up to 180 days - 50% reduction; *Overdue test over 180 days - 95% reduction. From 1 November 2018, 50% reduction in compensation also applies to; *Animals removed for TB control purposes that cannot be processed for human consumption at a slaughterhouse because they are unclean; Animals moved into a TB breakdown herd that are subsequently removed as TB reactors or direct contacts before the herd regains OTF status.

6 DEFRA Policy Paper: Bovine TB Strategy Review: Summary and Conclusions. Updated March 2020. HYPERLINK "<https://www.gov.uk/government/publications/a-strategy-for-achieving-bovine-tuberculosis-free-status-for-england-2018-review/bovine-tb-strategy-review-summary-and-conclusions>" Bovine TB strategy review: summary and conclusions - GOV.UK (www.gov.uk)

7 Defra (2020): HYPERLINK "https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/870414/bovine-tb-strategy-review-government-response.pdf" Next steps for the strategy for achieving bovine tuberculosis free status for England (publishing.service.gov.uk)

8 In Wales, compensation will be reduced in circumstances where authorities are satisfied, on a balance of probabilities, that the rules that are laid out in the TB Order have been broken - see Annex A of [Guidance notes - TB compensation \(gov.wales\)](https://gov.wales/guidance-notes-tb-compensation).

Scotland	<p>Scotland has bTB Free status (from Sept. 2009). As a result, its programme structures are very different to elsewhere in the UK and ROI, and very few animals are removed annually.</p> <p>Compensation: 100% of market value; (reductions for aspects of non-compliance⁹).</p> <p>Compensation cap: £5,000 for non-pedigree animals, and £7,500 for pedigree.</p> <p>Wildlife: No wildlife intervention.</p>
Country	Funding
ROI	<p>Compensation: System of Income Supplements, Re-population Grants and Hardship Grants. (Farmers contribute to funding 'pot' via levies. Payments are dependent on certain aspects of programme compliance).</p> <p>On reactors, 100% of market value is paid up to a cap.</p> <p>Compensation cap: up to a maximum of €3,000 is normally paid, except for one stock bull per year when a cap of €4,000 applies (€5,000 for a pedigree stock bull).</p> <p>Levies: Statutory levies raise farmer funding for compensation.</p> <p>Future funding considerations: As regards compensation the ROI's 2019 Spending Review stresses that financial supports should be balanced to offset some of the losses incurred but also to counteract the moral hazard of potentially encouraging excessive risk-taking behaviour. Accordingly DAFM intend to re-examine the level of financial supports provided and consider if the current split of funding between public and private sources is optimal in the context of achieving eradication.</p>

⁹ Scotland will reduce the amount of compensation paid, where an owner has allowed their statutory TB testing to go overdue by more than 60 days and TB reactors are subsequently disclosed in that herd. The reduction will be applied on a sliding scale which means that the longer the delay in testing the greater the reduction in compensation. Where the interval between the date the test should have been completed and the actual date it was completed is more than 60 days but not more than 90 days - the compensation amount paid will be 50% of the animal's market value. Where the interval between the date the test should have been completed and the actual date it was completed is more than 90 days - the compensation amount paid will only be 5% of the animal's market value. [Bovine TB - gov.scot \(www.gov.scot\)](http://www.gov.scot)

Annex B - Glossary of Terms

Term	Explanation
AERA Committee	NI Assembly Committee for Agriculture, Environment and Rural Affairs
AFBI	Agri-Food and Biosciences Institute
bTB	Bovine Tuberculosis
CAFRE	College of Agriculture, Food and Rural Enterprise
DAERA	Department of Agriculture, Environment and Rural Affairs
DAFM	Department of Agriculture, Food and the Marine (RoI)
DEFRA	Department of Environment, Farming and Rural Affairs (GB)
DRT	Disease Response Team
EIA	Environmental Impact Assessment
EU	European Union
FVO	Food and Veterinary Office (within European Union)
Herd Incidence	The incidence of disease describes the frequency of new cases of disease amongst previously non-diseased animals. Incidence can only be measured from studies which follow animals up over time.
IFNG	Gamma Interferon Test carried out on a blood sample
Minister	Minister of Agriculture, Environment and Rural Affairs
NI	Northern Ireland
PAC	NI Assembly Public Accounts Committee
PVP	Private Veterinary Practitioner
REP	Regional Eradication Partnerships
RIA	Regulatory Impact Assessment
RoI	Republic of Ireland
Sensitivity	The ability of a test to correctly identify an infected animal as positive, i.e. the higher the sensitivity of the test, the lower the probability of incorrectly classifying an infected animal as uninfected (a false negative result).
TBEP	Tuberculosis Eradication Partnership
TBSPG	Tuberculosis Strategic Partnership Group
TVR	Test and Vaccinate or Remove study

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