



Annex I.b : Programme for the eradication of bovine Tuberculosis, bovine Brucellosis or sheep and goat Brucellosis (*B. melitensis*) submitted for obtaining EU cofinancing

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- 7) For simplification purposes you are invited to submit **multi-annual programmes**.
- 8) As mentioned during the Plenary Task Force of 28/2/2014, you are invited to submit your programmes in **English**.

Submission Date

Monday, September 07, 2015 18:28:02

Submission Number

1441646884403-6685



Standard requirements for the submission of programme for eradication, control and monitoring

1. Identification of the programme

Member state: UNITED KINGDOM

Disease: Bovine tuberculosis

Species: Bovines

This program is multi annual: yes

Type of submission: New multiannual programme

Request of Union co-financing
from beginning of:

2016

To end of

2020

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1.1 Contact

Name : Patrick Burke

Phone : 0044 207 238 6445

Fax. : Policy lead - Bovine Tuberculosis Eradication Programme

Email : patrick.burke@defra.gsi.gov.uk

2. Historical data on the epidemiological evolution of the disease

Provide a concise description of the following indicators :

- Number of serologically positive domestic pigs compared to previous year
- Number of virologically positive domestic pigs compared to previous year
- Number of serologically positive wild boar/feral pigs compared to previous year
- Number of virologically positive wild boar/feral pigs compared to previous year
- An assessment of the evolution of the indicators along the years is requested as well as obstacles and constraints identified that hamper the progress of eradication.

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1. The efforts to eradicate bovine tuberculosis (TB) from the UK (Great Britain (GB) and Northern Ireland (NI)) pre-date the first legal initiatives in this area at European Community level and were initially driven by public health concerns and the desire to increase the productivity and welfare of the national cattle herd. Detailed background information of the schemes in place in the UK since 1949 has been submitted in previous programmes.

2. The eradication schemes met with initial success in the three decades leading up to 1979, when the prevalence in GB declined steadily to 0.018% of all cattle tested and most counties were virtually disease-free. However, this progress stalled by the 1980s, with TB incidence in the Southwest of England remaining about three times higher than elsewhere in the country despite the annual testing of herds in that area. In the 1970s, the Eurasian badger (*Meles meles*) had been identified as a potential reservoir of infection for cattle in the SW of England. Nowadays, TB is probably the most serious disease affecting the cattle industry in England, Wales and NI. The 2014/15 annual spend on TB controls in GB and NI was over £140 million (over £90m for England, £23m for Wales and £27m for NI), of which compensation and testing costs make up the largest share.

3. In 2009, Scotland was designated an officially TB free (OTF) region of the UK (Commission Decision 2009/761/EC). Scotland is therefore not covered by this Programme.

Current epidemiological situation in England*

4. Since 2013 England has been sub-divided into a Low Risk Area (LRA), a High Risk Area (HRA) and an

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Edge of High Risk (Edge) Area. The LRA comprises the counties in the North and East of England, where *M. bovis* infection occurs only sporadically in isolated cattle herds and is not considered endemic in wildlife. Most herds in the LRA are routinely tested for TB every four years. The HRA is the annual testing area of England comprising the South West, West Midlands and part of East Sussex, in which *M. bovis* infection is endemic in cattle herds and in badgers. The Edge Area is the annual testing area situated between the LRA and HRA.

Over the period 2009-2011, the annual herd incidence rate of bTB in England (expressed as the percentage of tuberculin skin tests carried out in OTF herds that identified a new bTB breakdown) remained relatively stable and below the historical peak of 9.8% in 2008. Between 2012 and 2014 the annual herd incidence rate experienced a reduction and this has continued into the first four months of 2015. The provisional herd incidence rate for January - April 2015 was 5.9% for all herd breakdowns. A similar stabilisation followed by a declining trend can be observed when the herd incidence of bTB is expressed as percentage of OTF herds tested in England that experienced a new breakdown with OTF herd status withdrawn (OTFW): the value of this statistic has dropped from 6.4% in 2008 to 4.3% in Jan - Apr 2015.

Animal-level incidence has also fallen from 5.8 reactors identified for every 1,000 tests carried out on animals in 2008 to 3.1 reactors per 1,000 tests in the first four months of this year.

Despite the overall reduction in the herd and animal incidence rates over the last few years, the number (and proportion) of herds affected by bTB at any given time during the year and the numbers of cattle slaughtered for bTB control purposes in England are still very high by EU standards and by comparison with the situation in the 1970s and early 1980s. However, the disease is not uniformly distributed across the country. In the LRA the incidence of new herd breakdowns continues to be very low and sporadic despite some increases in testing since 2013. The majority of OTFW breakdowns in the LRA are clearly attributable to inward movements of infected cattle from the higher incidence areas of GB. By contrast, the vast majority of new herd bTB breakdowns and test reactors in England continue to occur in the counties of the HRA.

In order to provide better, more accurate information on the incidence of bTB to both cattle keepers and vets, Defra launch a new publicly available web-based interactive map at the end of June 2015 (www.ibTB.co.uk). This shows the location details of TB breakdowns and break downs resolved in the last 5 years in England. This was further complemented by the publication in July, of a series of detailed epidemiological reports covering the Low Risk Area and the Edge Area of England.

The epidemiological position at the end of April 2015 in England could be summarised as follows:

- The total number of new bTB herd breakdowns detected during Jan-Apr 2015 was 1,415 (of which 1,022 resulted in OTF status being withdrawn), compared to the 1,418 new breakdowns (998 with OTFW status) for the same period in 2014.
- The number of bTB tests carried out in the first four months of 2015 was 23,791 in OTF herds (28,113 in all herds), compared to 23,117 (27,335 in all herds) for the same period in 2014.
- A total of 4,369 cattle herds in England had their OTF status suspended or withdrawn (i.e. were placed under movement restrictions) at some point during the first four months of 2015 due to a bTB breakdown, representing 8.6% of all herds in the country (51,039). The equivalent number of herds during the period January – April 2014 was 4,537, i.e. some 8.5% of all herds.

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- The total number of animal TB tests performed in Jan-Apr 2015 was 2,842,715, which represents a 5.3% increase compared to the equivalent figure for the same period in 2014 (2,700,031).
- Number of animals slaughtered for bTB control purposes in England as reactors to the tuberculin skin test or the interferon-gamma blood test during the first four months of 2015 was 8,928 compared to 8,961 in the same period in 2014.
- During the first four months of 2015, an additional 116 animals were removed from infected herds as direct contacts and 73 were taken as inconclusive reactors before re-testing (185 and 43 in January - April of the previous year, respectively).
- Finally, the number of suspect cases of bTB initially identified during routine post-mortem meat inspection in abattoirs of cattle carcasses ("slaughterhouse cases") in January-April 2015 was 554 (of which 398 were bacteriologically confirmed as *Mycobacterium bovis* infections), compared to 365 (264) in equivalent period of 2014.

5. Overall, the TB descriptive statistics for 2014 in England point to a gradual stabilisation in the main incidence and prevalence indicators of the disease over the last six years. However, the greater surveillance effort has resulted in the detection of more positive herds and animals, at least until 2012. It would be premature to reach firm conclusions on the factors at work in these reductions, including the impact of any particular TB surveillance or control measure introduced in recent years. Nevertheless, over the last four years the bTB surveillance and control measures have been substantially tightened in England and it appears that this combination of enhanced measures is starting to have a positive effect on the disease trends. To draw more meaningful conclusions, we need to look at longer term trends and see whether the reductions of 2013 and 2014 can be maintained in the coming years

Current epidemiological situation in Wales*

6. The current epidemiological situation in Wales is set out below

The number of new bovine TB herd breakdowns in Wales peaked during 2008 and 2009. Subsequently, there were substantial decreases in 2010 and 2013, with a period of relative stability in between. There was a small decrease in 2014, resulting in the lowest annual figure recorded to date since the TB Programme has been co-financed. The latest figures show that the trend does appear to have turned upwards recently. However, the series is characterised by short-term fluctuations, up and down. It is also important to note that much of the recent increase is attributable to increases in testing.

The number of new breakdowns varies greatly from month to month; this variation is due to a variety of reasons including the seasonal aspect of TB testing, since more testing takes place during the winter than during the summer, the impact of unusual weather and the number of test reading days in a month. Consequently, care should be taken not to read too much into changes in the figures over short periods of time. The latest figures show that in Wales:

There were 364 new bTB breakdowns detected during Jan-Apr 2015 (of which 203 resulted in withdrawal of OTF status due to confirmation of disease), compared with 317 in the same period in 2014 (170 OTFW due to confirmation). There are circumstances where OTFW status is applied to herds due to epidemiological reasons, without confirmation via post mortem examination or bacteriological culture. Such OTFW breakdowns are not included in these statistics.

• The number of bTB tests carried out on OTF herds in the first 4 months of 2015 was 7,744 (8,584 on all herds), compared with 6,984 in Jan-Apr 2014 (7,847 on all herds).

1,082 cattle herds were under movement restrictions at the end of April 2015 due to a bTB incident or overdue test, representing 9.1% of all herds in Wales. At the end of December 2014 1,009 herds were

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under restrictions (8.4% of all herds).

The number of animals slaughtered due to bTB control during Jan-Apr 2015 was 2,425, compared with 2,470 in the same period in 2014.

The number of suspect cases of bTB initially identified during routine post-mortem meat inspection in abattoirs ('slaughterhouse cases') during Jan-Apr 2015 was 57 (of which 36 were subsequently confirmed via bacteriological culture). This compares with 62 slaughterhouse cases (38 confirmed) in the first 4 months of 2014.

Herd incidence (the number of new bTB incidents per 100 tests on OTF herds) was 4.7 for the first 4 months of 2015, compared with 4.5 for the same period in 2014.

*Disease statistics for Great Britain are published by Defra on a monthly basis and are available at the following link. The 15 July 2015 release of TB statistics has been used for the compilation of epidemiological summaries for England and Wales.

<https://www.gov.uk/government/publications/incidence-of-tuberculosis-tb-in-cattle-in-great-britain>

Current epidemiological situation in NI

7. NI is epidemiologically and geographically distinct from GB and has developed and implemented a separate programme since controls began. Measures of disease in NI are not directly comparable with those in GB.

8. The live animal surveillance disclosure trend was level for the 4 years prior to August 2011 and then rose consistently for 14 consecutive months peaking in October 2012. Since then it has been fluctuating but has shown an overall downward trend reaching 6.03% at 31 December 2014. Summary figures are provided below.

- Number of herds with TB found at slaughter of animals which were not TB reactors in the 12 months to end January 2015 was 375 and the number in the previous 13-24 months was 372.

- Number of animals tested during 2014 using IFNG was 16,991, with 772 removed solely based on IFN-gamma results, compared with 16,913 animals tested and 538 removed solely based on IFN-gamma results in 2013.

- Number of animals as removed as direct contacts was 1060 during 2014 compared with 565 during 2013.

9. The latest comprehensive set of disease statistics for NI is available in DARD's published statistics at <http://www.dardni.gov.uk/index/dard-statistics/animal-disease-statistics.htm>

Background on Wildlife

10. The Eurasian badger (*Meles meles*) is a significant driver for disease spread in areas of England and Wales where the disease is considered to be endemic. It was first identified as a possible wildlife reservoir of infection for cattle in the early 1970s in parts of the South West of England where a high incidence of bTB persisted despite enhanced herd control measures (bTB 'hotspots'). A series of different strategies were developed throughout the 1970s, 80s and 90s to tackle this wildlife source of *M. bovis* in England and Wales. Currently, England is implementing a proactive, industry-led area-based badger culling policy under licence in three areas (each minimum cull area 150 km²). Defra also part-funds and promotes vaccination of badger in the Edge Area where badgers are thought to have lower infection prevalence and where it may be feasible to create immune badger barriers to slow down the geographic spread (see part 4.4.7 for more details on measures to control TB spread from badgers).

11. In NI, DARD recognises that involvement of wildlife, mainly badgers, must be addressed if eradication is to be achieved. Deer are not considered significant in the epidemiology within NI. The role of badgers in the epidemiology has not been quantified but DARD continues to work in partnership with its science provider, Agri-Food and Biosciences Institute, to identify knowledge gaps and to explore research and development options to complement current work. Both the unique "Test and Vaccinate or

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Remove" (TVR) wildlife intervention research project, which commenced in 2014, and the long-standing Road Traffic Accident (RTA) survey will provide epidemiological information to inform our future approach. A badger cattle proximity study has also been completed. A badger element was also included in the TB Biosecurity Study (see link under Latest Developments).

Main Objective for UK

12. The objective of the programmes across the UK is the progressive reduction and eradication of bovine TB from the national cattle herd, based on conventional test, slaughter and movement control methodologies. The separate programmes also include measures designed to deal with TB in the wildlife (badger) population where it is known to contribute to the prevalence of infection in cattle and other domestic species.

13. In the UK, animal health policy is devolved so administrations in England, Wales and NI implement policies that reflect their regional circumstances while working together to ensure consistency and similarity of approach where appropriate.

14. There is close liaison between the four administrations to ensure that policies are co-ordinated between the different countries and that opportunities to work in collaboration are realised. This includes regular meetings between officials and a monthly meeting of Chief Veterinary Officers. This ensures that the fundamental cattle measures for controlling TB remain consistent throughout the UK with tailored policies where appropriate to reflect different epidemiological risks.

Main measures for UK

15. The terminology used to describe the TB status of herds, i.e. Officially Tuberculosis Free (OTF) status, OTF status-withdrawn (OTFW (OTW in NI)) or OTF status-suspended (OTFS (OTS in NI)) is consistent with EU legislation.

Summary of controls in the submitted programme

16. Latest developments and future plans in each administration are summarised in Section 3 and controls are discussed in more detail in Section 4.

- The national surveillance regime complies with Council Directive 64/432/EEC:
 - o Comparative intradermal tuberculin testing of cattle herds at regular intervals according to the disease incidence in a defined region: six-monthly in parts of the Edge Area in England; annually in NI and in the High Risk and the remainder of the Edge Areas of England; and every four years in the counties of the Low Risk Area of the North and East of England. Higher risk herds in the Low Risk Area (a small proportion of the total number of herds in the region) are placed on annual testing. In Wales, herds in the Intensive Action Area (IAA) are subject to six-monthly testing; all other herds are subject to annual TB testing regardless of the incidence in a given region. This has the implication of pre-movement testing requirements for all Welsh herds (see below);
 - o Targeted testing of cattle herds with epidemiological links to infected herds;
 - o Immediate movement restrictions (suspension of OTF status) and active management of herds with overdue TB tests (zero tolerance);
 - o Complementary slaughterhouse surveillance of all animals slaughtered for food production across the UK;
 - o Registration, identification and movement reporting of all cattle.
 - o In England and Wales, compulsory pre-movement comparative intradermal tuberculin testing of all cattle over 42 days of age from OTF herds that are subject to annual (or more frequent) TB testing, except those animals moved directly to slaughter and other limited exceptions.
 - o Post-movement comparative intradermal tuberculin testing of cattle is encouraged as best practice. In August 2015, Defra consulted on compulsory post-movement testing of cattle moved from annual testing areas in England and Wales to live in the Low Risk Area of England.
- Development of TB controls:
 - o Use of evidence-based policy making;
 - o Monthly publication of comprehensive TB statistics, supplemented by annual TB surveillance reports

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for GB, England, Wales and NI;

- o A wide-ranging TB research programme;
- o Use of epidemiological and other data to inform and assess effectiveness of policies (annual surveillance report and other ad hoc reports);
- o Development of tailored policies in GB to reflect area disease incidence and risks. As NI is epidemiologically and geographically distinct from GB it applies a distinct programme uniformly;
- o Use of advisory technical and stakeholder groups.
- Biosecurity:
 - o Animal husbandry best practice guidance;
 - o Provision of advice and support for farmers;
 - o Projects to raise awareness.
- Control of infection in herds:
 - o Isolation, removal and slaughter of test reactors and direct contacts;
 - o Post-mortem examination of these animals;
 - o Laboratory analysis of tissue samples (bacteriological culture, PCR, molecular typing (and histopathology in NI));
 - o Cattle movement restrictions;
 - o Compliance with food hygiene regulations;
 - o Appropriate cleansing and disinfection of buildings, transport and equipment;
 - o One retest of inconclusive reactors as per Council Directive 64/432/EEC Annex B;
 - o Adoption of a more sensitive cut-off point for the comparative intradermal tuberculin test ('severe interpretation') and deployment of the IFN-gamma parallel blood test to supplement intradermal testing and enhance detection of infected animals in specific scenarios;
 - o Stamping out of severely infected epidemiologically separate groups or entire herds (partial or total depopulation);
 - o Forward and back-tracings from OTFW breakdown herds and check testing of herds that are contiguous to those breakdowns based on a risk assessment carried out in accordance with staff instructions;
 - o Compensation paid for compulsory slaughtered animals;
 - o Epidemiological investigation and risk assessment;
 - o Controls on restocking of breakdown herds
- Single intradermal testing of cattle that are certified for trade with other EU Member States in the 30 days before departure from an OTF herd.
- Control measures in wildlife reservoirs of TB (badgers).
- In GB there are measures for dealing with the sporadic laboratory-confirmed incidents of TB in farmed species other than cattle (e.g. camelids, deer and goats) which are considered 'spill-over' hosts in England and Wales. There is no evidence of any significant impact from these species on the TB control Programme in NI.

Attachments

1. Enhancements of cattle measures in England since 2011 (revised)
2. Key policy developments in Wales between 2008 and 2014
3. Map of the eight main epidemiological study areas in Wales
4. Supplementary Information (Section 3) for Wales in response to Commission letter dated 20/7/2015
5. Supplementary Information for Northern Ireland in response to Commission letter dated 20/7/2015
6. TR55 Guidance Notes for Veterinary Risk Assessment (England and Wales)
7. TB64 (ES) Standard and Severe Interpretation Matrix (England)
8. TB64 (W) Standard and Severe Interpretation Matrix (Wales)
9. TB64A (ES) TB Test Interpretation in England
10. TB64A (W) TB Test Interpretation in Wales

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3. Description of the submitted programme

Provide a concise description of the programme with its main objective(s) (monitoring, control, eradication, qualification of herds and/or regions, reducing prevalence and incidence), the main measures (sampling and testing regimes, eradication measures to be applied, qualification of herds and animals, vaccination schemes), the target animal population, the area(s) of implementation and the definition of a positive case.

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England

1. In 2014, Defra published its comprehensive Strategy to achieve OTF status for England to be achieved by three key actions:

- Maintaining three TB management regions or zones – a High Risk Area, a Low Risk Area and an Edge of High Risk Area in between;
- Applying a range of measures to control the disease within these zones that is practical and proportionate to the disease risk while maintaining an economically sustainable livestock industry. The Low Risk Area strategy has been in place since the start of 2013. The Edge Area strategy was deployed in 2013/2014. The High Risk Area strategy is evolving;
- Ensuring that there is shared governance of the delivery process between beneficiaries including the food and farming industry and the taxpayer.

2. More details can be found at www.gov.uk/government/publications/a-strategy-for-achieving-officially-bovine-tuberculosis-free-status-for-england

3. Defra also announced plans to:

- Continue to strengthen cattle controls to stop the disease from spreading from herd to herd;
- Improve biosecurity – Biosecurity Action Plan published in December 2014. www.gov.uk/government/publications/cattle-biosecurity-action-plan-for-improving-herd-resilience-to-bovine-tb;
- Establish a new grant-funded scheme for badger vaccination projects in the Edge Area - details announced September 2014;
- Continue the two four-year badger culling projects in Somerset and Gloucestershire – in 2015 Defra announced the start of a third four-year badger culling project in Dorset pending decisions on further extension of the policy in other areas where TB is rife.;
- Establish a service to provide farmers in the Somerset and Gloucestershire cull areas with bespoke advice on how to better protect their farms from disease - details announced January 2015;
- Continue to invest in new tools such as the development of a new vaccine for cattle and an oral badger vaccine through the shared GB TB research and development budget

Latest Developments in England

4. Attachment 1 includes key enhancements made to cattle measures since 2011 in England. These enhancements included removing various pre-movement testing exemptions and stopping the practice of lifting restrictions on epidemiologically separate parts of TB affected holdings.

5. In May 2015, TB testing in England came under a proper contractual framework: all new TB testing will be undertaken by five regional suppliers (Delivery Partners) who are responsible for allocating local official veterinarians (OVs) and ensuring testing is carried out to a high standard. In June 2015, a web-based map (ibtb.co.uk) was launched showing the location of TB herd breakdowns followed by the publication of epidemiological reports for the Low Risk and Edge Areas.

Key enhancements to the programme planned or under consideration in England

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6. In 2014, Defra announced that administrative links between holdings on the Cattle Tracing System (CTS) and Sole Occupancy Authorities (SOAs) would be abolished in England over a two-year period beginning in 2016.

7. In August 2015, Defra launched

- A public consultation on a package of additional cattle measures in 2016 including statutory post-movement testing of cattle moving into the Low Risk Area to live, tightening controls on OTFS breakdowns in the High Risk Area, tightening controls on finishing units, reviewing controls in the Edge Area and enhancing epidemiological assessment of the epidemic in the High Risk Area;
- A public consultation on changes to the criteria for future badger control licences; and
- A call for views on controlling TB in non-bovine animals such as pigs, goats, and deer.

Other planned measures for 2015/16 include publication of a five-point TB biosecurity plan and releasing farm-level TB risk scores. Additionally industry is planning to improve advice to farmers (October 2015) launch a TB accreditation system (October 2015) and facilitate breeding for partial genetic resistance to TB in Holstein cattle (December 2015).

Wales

8. Welsh Government (WG) has had a comprehensive TB Eradication Programme in place since 2008. The Programme is underpinned by a Strategic Framework for Bovine TB Eradication that was published in 2012 and includes a range of measures which are being incorporated into policy in a progressive manner and will continue for remainder of 2015 and 2016. It can be found at: wales.gov.uk/topics/environmentcountryside/ahw/disease/bovinetuberculosis/bovinetberadication/tbstrategicframework/?lang=en.

9. It is the intention to review the Strategic Framework for TB Eradication in Wales in 2015/16.

10. WG is committed to taking a science led approach to TB eradication and our Programme is designed to tackle all sources of infection including cattle, domestic non-bovines and wildlife. The Programme covers all aspects of disease prevention, transmission and breakdown management. The foundations of the Programme continue to be cattle surveillance and controls and addressing the wildlife reservoir of infection and these areas will continue to be the focus in 2016. Wales has had an annual herd testing regime in place since 2010 and this will continue in 2016. There is no area which is subject to less frequent surveillance testing based on epidemiological evidence. Additionally, there is six-monthly testing of herds in the Intensive Action Area (IAA).

11. Progress against the strategic framework during 2014 can be found below and measures are described in more detail in Section 4.

Latest developments in Wales

12. Key policy developments in Wales between 2008 and 2014 are outlined in Attachment 2.

13. A number of important enhancements to the Welsh Programme took effect from 30 September 2014. These include:

- In line with commitments made in 2014 and following a review of the remaining pre-movement testing exemptions in Wales, WG announced that cattle moving to and from SOAs would no longer have an automatic exemption from pre-movement testing.
- The practice of lifting restrictions on epidemiologically separate parts of TB affected holdings came to an end.

14. More recent developments and enhancements for 2016 include:

- Following review of the TB compensation system and consultation, in October 2014 a number of enhancements to the Welsh compensation arrangements and requirements were made. See Part 4.
- WG also committed as part of this announcement to strengthen the current policy of penalising cattle keepers who undertake risky practices, as well as better incentivising farmers to keep disease out of their herds. These enhancements will need a legislative change and a consultation on amendments to the Tuberculosis (Wales) Order 2010 which will cover a number of areas, began in August 2015 with a view to changes taking effect in early 2016.

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- In April 2015, following formal procurement through the Official Journal of the European Union, TB testing in Wales came under a proper contractual framework. All new TB testing is now being undertaken by two regional Delivery Partners (Menter a Busnes in north Wales and Iechyd Da (Gwledig) Ltd in south Wales). Delivery Partners are responsible for allocating local official veterinarians (OVs) to carry out TB testing and ensuring testing is carried out to a high standard.
- Linked to the formal procurement of OVs, a new process for the training and assurance of OVs has been introduced in Wales. Under the new process OVs will be required to gain a new qualification in order to be approved. There are a number of different modules available covering different areas of work. There is a specific module covering tuberculin testing. Both APHA and Delivery Partners have quality control and audit processes in place for auditing TB testing in Wales.
- Ongoing monitoring of the remaining Pre-Movement Testing exemptions following the review in 2013. Work is on track to remove the common land exemption by 31 December 2015.
- While there was a tightening up of Common Agricultural Policy Scheme penalties for late bovine TB tests from January 2014, this was enhanced in January 2015 to include all overdue TB tests regardless of whether this was identified at inspection. The level of reduction depends on how long the test is overdue and other relevant criteria such as repeated instances of overdue testing. A reduction will apply if a test is one day or more overdue. All TB tests will also need to be fully completed with all eligible animals injected and read before or on the last date of the testing window.
- Following on from the pilot project led by the TB lead Epidemiologist which was based around six areas of Wales, a number of additional and more targeted interventions have already been implemented, on a local as well as, in some cases, national level. APHA is currently implementing the agreed recommendations and have established a further two project areas (mid-Powys and west Wales) to investigate local epidemiological conditions.
- A number of developments are taking place in respect of WG's Cymorth TB initiative, including further roll out and development of accredited advanced training in TB. Work is underway to develop an additional strand of Cymorth TB and concerns procuring farmer/family support services from the Farm Community Network. We have also had initial discussions with some organisations who may encounter herd keepers undergoing a TB breakdown and who may be able to help offer an enhanced service (banks, building societies, auctioneers). Further information is in Part 4.
- Working with the livestock industry and Regional TB Eradication Delivery Boards, WG continues to develop ways in which the farming industry can make informed decisions on purchasing cattle. Cattle buyers are being encouraged to ask for information, such as when the herd came off restrictions, which will give them a better understanding of the potential TB risk of the cattle they are buying. A grant has been established to facilitate this concept and enable livestock markets to buy equipment, such as display boards and screens, and any new or update to back-office software.
- Following a consultation in January on proposed changes to the TB (Wales) Order 2010 which will allow Welsh Ministers to publish locations of TB breakdowns, Welsh Government is intending to introduce a web based system by the end of the year which will support future biosecurity and Informed Purchasing (Risk Based Trading) policies in Wales.
Work is underway to formally procure the services of valuers who undertake cattle TB valuations. The procurement framework will be in place by the end of 2016.
- Continuation of the five-year IAA badger vaccination project. The penultimate year (year 4) of the project started in May 2015.
- WG has commissioned APHA to undertake an assessment of badger social group sizes during the summer of 2015 to provide an estimate of the population of badgers within the IAA. This will then enable WG to more accurately calculate the proportions that are vaccinated.
- Wider roll out of badger vaccination in other areas of Wales through the provision of a Badger Vaccination Grant (BVG) where the cost of vaccinating badgers in specific areas is being shared with individual farmers and landowners (on a voluntary basis).

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- Continuous monitoring and review of the circumstances in which the IFN- gamma test is deployed in parallel with the tuberculin test in Wales. To enhance laboratory capacity, in 2015 the former Carmarthen Veterinary Investigation Centre was upgraded to conduct IFN-gamma testing in Wales.
- The Wales Animal Health and Welfare Framework Group are working in partnership with WG to raise awareness of good biosecurity practices and the benefits these can bring. Implementation of good biosecurity practices is the first line of defence against serious notifiable infectious diseases including bovine TB. This work is a key priority for the 2015/16 year as set out in the Wales Animal Health and Welfare Framework Implementation Plan.
- Continuation of the National Badger Found Dead Survey in addition to that being taken forward specifically in the IAA.
- Continuation of the work to target persistent herd TB breakdowns through enhanced case management.
- Appropriate enforcement action, alongside Local Authorities, in respect of farmers who fail to test their cattle on time and those suspected of carrying out illegal activity.
- Region specific initiatives led by the three Regional Eradication Delivery Boards. All have held best practice events in addition to evening meetings to enable farmers and veterinary surgeons in their areas to discuss TB issues including policy development with key individuals within WG and APHA.
- Continuation of reactive surveillance for TB in camelids, goats and deer and other non-bovines.
- A watching brief on bovine TB in wild deer populations in Wales (samples taken as part of population management culls across a number of locations).
- The application of OTFW status as a default position to all new TB breakdown herds will take effect from January 2016. OTFS status will only be granted if there is epidemiological evidence to suggest OTFW status should not be applied.
- Through GB research projects, WG continues to invest in new tools such as the development of a new vaccine for cattle and an oral badger vaccine.
- As part of WG's 'Working Smarter Programme', work is being undertaken as part of a wider review of the rules associated with how "holdings" are defined in Wales (currently County, Parish, Holding (CPH)). Work towards implementing a new CPH business system, which will remove all SOAs and CTS links has commenced.

Northern Ireland (NI)

15. As already indicated NI is epidemiologically and geographically distinct from GB and has implemented a separate programme since controls began. NI policy is the progressive reduction towards the eventual eradication of bovine TB, adopting a phased strategic approach to promote effective/efficient ways to reduce disease transmission, namely:

- Control of disease spread between cattle
- Address wildlife role
- Create a strategic delivery partnership with the agricultural industry

16. DARD strategy and aims for TB control in cattle are published in:

a) DARD Strategic Plan 2012-2020

• To enhance animal, fish and plant health and welfare. This plan lists one of the measures of success as being "a clear direction for the eradication of Tuberculosis" and one of the key actions is to "work with stakeholders to develop a long-term strategy for the eradication of TB in cattle".

b) In addition, the Agri-Food Strategy Board (established by relevant NI Ministers but chaired and composed of agri-food industry leaders) endorsed this measure in its "Going for Growth" Report that Government and Industry must work together to support a range of animal health and welfare measures including "an agreed strategy to deliver a significant reduction (and ultimate eradication) of Bovine TB".

c) DARD Business Plan 2014-2015

• Publish 2013 TB annual Report by 30 November 2014 - the report is at www.dardni.gov.uk/bovine_tuberculosis_tb_annual_report_2013..pdf

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- Facilitate the Government/Industry Strategic TB Partnership to develop a long term TB Eradication Strategy and Action Plan by 30 September 2015

The DARD Minister announced in September 2013 that she planned to establish a Government/Industry TB Strategic Partnership Group (TBSPG) to develop a long-term strategy to eradicate TB from the NI cattle herd and an associated implementation action plan, which should outline the cost of implementing the various elements of the strategy; detail how these elements will be funded; and agree who will lead on their implementation. This strategy is to be all embracing and address all the issues such as TB compensation; improving biosecurity; improving communications with farmers and vets; and developing our ability to address the wildlife factor. The Strategy should seek to re-energise relationships with all industry stakeholders; consider as appropriate the enhancement of primary and secondary legislation; and consider other means to tackle and eradicate this disease. The TBSPG produced an interim report in June 2015 and is expected to finalise the TB Eradication Strategy and Implementation Action Plan by end of 2015. Although the TBSPG is expected to finalise these by the end of December 2015, much will depend on the responses to the consultation on their Interim Report (closing 4 September 2015) and consideration and agreement of their final recommendations. Slippage on this timeframe is possible and implementation of the final recommendations may require statutory changes, provision of additional resources etc. While it is likely that some recommendations could be implemented during 2016, it is not anticipated at this time that these will require any fundamental recalculation of the number of TB tests to be conducted, numbers of reactor animals to be removed etc. during 2016.

Implementation of these aims will continue in 2015/16 and are contained in Business Plans.

d) DARD Veterinary Service Business Plan 2015-2016:

- To maintain a robust TB Delivery Programme with a view to long term eradication and publish an Annual TB Report for 2014 by 30 November 2015.

This is DARD Veterinary Service's key objective related to the TB Programme and is supported by various subordinate objectives.

17. In 2012 the DARD Minister announced that she had instructed officials to develop Test and Vaccinate or Remove (TVR) Wildlife Intervention Research. The resulting TVR project is an important and unique scientific study, the aim of which will be to test the effectiveness of this approach on the level of TB in badgers and in cattle in the designated TVR area in County Down. It is intended that TVR will provide a unique contribution towards research into TB and wildlife and provide much needed epidemiological data on badgers. It is not just a simple replication of research or interventions being undertaken elsewhere.

18. In May 2014 the TVR Research Project started in 100km² of County Down. TVR will run for five years to investigate the effect of the combined use of badger vaccination and the selective removal of TB test-positive badgers on badger and cattle TB incidence in a single area. The final year of TVR field activities will be 2018, following which all collected data will be analysed. DARD anticipates that a final report on the TVR Research Project will be available in late 2019. Badgers in the TVR area will be captured between June and November annually, sampled, micro-chipped, tested for bovine TB and if negative, vaccinated and released. If a badger tests positive for bovine TB it will be removed. In year 1 (2014) of the TVR Project, all captured badgers were vaccinated and released to establish baseline movement data before TB test positive badgers are removed from Year 2 in 2015. Movement data is being collated by the fitting of 40 GPS collars to a selection of adult badgers and scientific data will be collected throughout the TVR research project to inform our knowledge of disease transmission, badger ecology and economic analyses as well as quantifying costs and field logistics of implementation. Veterinarians working on TVR are trained and licensed under the Animals (Scientific Procedures) Act 1986. AFBI will provide analytical and laboratory support. The role of badgers in the epidemiology of TB in NI has not been quantified. Both the ongoing TVR Project and RTA survey will provide epidemiological information for the NI approach going forward.

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19. Further details are provided at www.dardni.gov.uk/test-and-vaccinate-or-remove

Surveillance Procedures in NI

20. The surveillance programme in NI is as described below:

(a) NI has a surveillance, compulsory removal and compensation programme. Surveillance involves both post mortem examination and live animal surveillance.

(b) NI has had a continuous programme of annual tuberculin skin testing since 1983.

(c) Slaughter surveillance in NI is highly developed, fully integrated, and is a significant programme surveillance procedure. All animals slaughtered for human consumption undergo post mortem examination, compliant with Regulation (EC) No.854/2004, by DARD employed meat inspectors under the immediate supervision of the designated DARD employed Official Veterinarian. The results are immediately available on the computerised APHIS database. Full integration allows prompt actions to be taken by field staff. Further laboratory analysis carried out at AFBI is also fully integrated with APHIS, ensuring continuity of information and security of actions.

(d) Live animal surveillance is undertaken using three methods. Results are recorded on APHIS;

- o Single Intradermal test for intra-EU trade certification.

- o Single Intradermal Comparative Cervical Tuberculin Test (SICCT) for population surveillance. In NI, standard methodology of interpretation of the SICCT is applied as per Council Directive 64/432/EEC.

In addition to recording the measured skin-fold thickness at each site 72 hours after the time of injection, both the bovine and avian injection sites must be examined for evidence of any gross changes. All changes must be recorded. A clinical inspection of all cattle tested must be carried out at every tuberculin test, and any animal showing signs of emaciation, cough or discharge from the nostrils must be noted. Where any of these signs are seen, the testing officer must carry out a clinical examination of the animal, palpating the superficial lymph node sites and the udder of female cattle. Any animal suspected of TB due to its clinical signs is made a reactor.

- o IFN-gamma testing is used as a supplementary diagnostic test in parallel to the SICCT where considered epidemiologically appropriate. It is undertaken within practical limits determined by laboratory facilities and capacity, but is used at a proportionately high level. It is currently targeted at removing additional infected animals from breakdown herds, but its application is under review to optimise its future use.

Severe interpretation of the SICCT results is used to increase sensitivity of testing early in all OTW breakdowns and as considered epidemiologically appropriate elsewhere. Severe interpretation is routinely interpreted as described in the methodology for Wales (Part 4.4.6). In addition, Veterinary Officers (VOs) may remove severe inconclusives or other animals with a bovine reaction where they consider it to be beneficial for disease control. Based on the recorded skin measurements, the computerised database APHIS displays the putative result under both standard and severe levels of interpretation for all animals presented for manual interpretation, and the VO decides on the appropriate final result. Veterinary Service staff instructions define the mandatory use of severe interpretation within OTW breakdowns and in addition, permit the discretion to apply more severe interpretations of the SICCT in other situations. Severe interpretation must be fully applied to one of the first two herd tests in an OTW breakdown. Severe or even more sensitive interpretation can also be applied to any other test during the breakdown, and may be applied fully or partially. This approach allows the Patch VO to remove severe inconclusive cattle or other animals with a bovine reaction.

Decisions will depend on the individual herd breakdown. Any animal made positive or inconclusive in this way will have the same effect on the breakdown herd as a standard positive or inconclusive e.g. if there is an animal taken as a positive on super-severe, in an OTW herd, that herd will require two more clear herd tests.

(e) All NI herds are constantly allocated an OT status, reason for status, type and due date of next test. OT statuses are as defined in Council Directive 64/432/EEC (as amended). Additionally it is mandatory that if an NI herd discloses more than five skin reactors without regard to disease confirmation, and

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discretionary in further situations, when deemed epidemiologically appropriate, OTW is applied. The status reason specifically defines why the status applies. The next test type highlights the future testing requirement.

(f) Movement of cattle from OTW and OTS herds is immediately restricted via APHIS.

(g) Annual herd testing in NI is routine. Animal eligibility complies with Council Directive 64/432/EEC (as amended). Also, any herd overdue for testing loses OTF status immediately, with further delay resulting in increased movement sanctions and progression to OTW.

(h) Herds test more frequently if disease is suspected or confirmed, or if deemed at increased disease risk.

(i) Animals may not leave a herd during a test except directly to slaughter in NI, with prior DARD permission.

(j) There are no exemptions from the Programme.

Wildlife Policy in NI

21. The wildlife policy in NI is as follows:

- The badger road traffic accident survey started in 1999 and is ongoing. The interim report is at - www.dardni.gov.uk/m-bovis-surveillance-european-badgers-rta-epi-eval.pdf
- The badger – cattle proximity study concluded March 2014. www.dardni.gov.uk/badger-cattle-proximity-report.pdf
- The TVR Research Project.
- Badger sett surveying has been completed in two designated areas of Co Down. The information gained also helped formulate the design of the TVR project.
- There are comprehensive and developing measures within the DARD programme to reflect the evidence from studies to date. Veterinary Service staff instructions cover badger ecology, recognition of badger setts and of signs of badger activity, badger related biosecurity measures, and the legally protected status of badgers. Training has been delivered to all Field VOs and practical demonstrations of badger related biosecurity measures have been provided to Veterinary Service staff and to herd keepers. The likelihood of wildlife involvement in each individual breakdown is assessed by a VO who then provides bespoke wildlife biosecurity information relevant to that individual farm. Herd keepers also receive advice on non-lethal measures to reduce potential contact between wildlife and cattle.
- DARD has produced wildlife biosecurity advice leaflets for farmers and vets and has a plan in operation for their distribution to farmers and PVPs. The current wildlife biosecurity advice leaflet is at www.dardni.gov.uk/tb-wildlife-biosecurity-leaflet.pdf. VOs and inspectors also provide specific advice during farm visits.

DARD is seeking to develop and improve effective communications about on-farm TB biosecurity and wildlife disease protection methods to farmers. It is considering how the new Rural Development Programme could assist in delivering bespoke biosecurity training to farmers and to fund badger-cattle separation measures to address issues identified in the TB Biosecurity Study and the Badger-Cattle Proximity Study. It also is actively seeking ways to fund on-farm TB biosecurity improvement measures via rural development funding. A stakeholder workshop has been held to discuss the conclusions of studies and reviews conducted in NI to enhance understanding of important elements of TB epidemiology, including the role of the badger. www.dardni.gov.uk/index/animal-health-and-welfare/animal-diseases/bovine-tuberculosis/tb-research-and-development.htm

Latest developments in NI

22. Programme developments in NI since 2011 include:

- Publication of the TB Biosecurity Study: www.dardni.gov.uk/tb-biosecurity-study.pdf
- Publication of the TB and Slurry Literature Review: www.dardni.gov.uk/tb-slurry-lit-review.pdf
- Publication of the Badger/Cattle Proximity Study: www.dardni.gov.uk/badger-cattle-proximity-report.pdf
- Publication of Field Survey for the Prevalence of Badger Setts in County Down, NI report: www.dardni.gov.uk/badger-sett-survey-report.pdf

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- Other published reports can be found on the DARD website: www.dardni.gov.uk/index/animal-health-and-welfare/animal-diseases/bovine-tuberculosis/tb-publications.htm
 - Organising and hosting an international Wildlife Vaccination symposium
 - From June 2012, DARD employed veterinarians have applied DNA tags to reactors at disclosure. Livestock Valuation Officers have applied them at valuation since December 2010.
 - Further integration between headquarters and the field based TB implementation team to strengthen programme delivery.
 - Further training provided for all Veterinary field staff involved in delivery of the TB Programme
 - Training of administrative support staff involved in the TB programme
 - Biosecurity training for private contractors involved in infrastructure projects in Rural Areas.
 - On-going development of web based biosecurity training for private veterinary practitioners
 - Publication of a 2013 TB Programme Annual Report: www.dardni.gov.uk/bovine_tuberculosis_tb_annual_report_2013.pdf
 - Provision of TB heat maps to all PVP practices that TB test in NI
 - Regularly updated VNTR data and maps made available to DARD Vets via the DARD Intranet
 - Strengthening of the process to approve PVPs to undertake TB testing on behalf of DARD
 - Biannual revision of staff instructions
 - On-going epidemiological analysis of key programme elements, including use of gamma interferon, use of severe interpretation, reduction of the number of NVL reactors required before a herd is made OTW (5-2), risk based trading, chronic herds etc. is ongoing.
 - Creation of the TBSPG which has met regularly and gathered evidence in order to publish an interim report in mid-2015 and a final report and implementation action plan in December 2015.
- Further programme developments will occur after consideration of the recommendations in the EU Food and Veterinary Office report on TB in NI (DG (SANTE) 2015-7570 – MR).

4. Measures of the submitted programme

4.1 Summary of measures under the programme

Duration of the programme: 2016 - 2020

First year :

- Control
- Testing
- Slaughter and animals tested positive
- Killing of animals tested positive
- Vaccination
- Treatment
- Disposal of products
- Eradication, control or monitoring

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Last year :

- Eradication
- Testing
- Slaughter of positive animals
- Killing of animals tested positive
- Extended slaughter or killing
- Disposal of products

Other, please specify

4.1.1 Timeline for the eradication

Provide the timeline foreseen for the eradication with detailed justification (max. 32000 chars) :

England

1. Defra's strategic objective is to achieve OTF regional status for England by 2038. Defra has an interim strategic objective of achieving OTF regional status for large parts of the north and east of England (Low Risk Area) as soon as possible but most likely by 2019.

Wales

2. The Welsh Government recognises that the eradication of TB in Wales is a long-term objective. The reductions seen in key indicators in recent years are encouraging and emphasise the need to continue to strengthen the measures put in place to bear down further on TB as Wales progresses towards eradication. On this basis, the Welsh Government is looking to achieve TB eradication in Wales within a 20-25 year timeframe and by 2040.

Northern Ireland

3. DARD's aim is the progressive reduction in levels of TB with the ultimate long term aim of eradication. The Minister's TB Strategic Partnership Group (TBSPG) is considering how DARD can reduce both the level and cost of TB by the greatest degree in the shortest time. The TBSPG's interim report was published in mid-2015 with a final report and action plan expected by December 2015. An eradication date for Northern Ireland cannot be set ahead of the conclusion of the TBSPG's considerations, but a date significantly in advance of those currently estimated for England and Wales is unlikely.

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4.1.2 Interim targets in relation to the timeline for eradication

based on herd prevalence and herd incidence at different periods in link with the timeline for eradication (max. 32000 chars):

1. The Commission Working Document SANCO/10181/2014 Rev 5 (Guidelines for the Union co-funded programmes of eradication, control and surveillance of animal diseases and zoonoses for the years 2015-2017 – update for 2016-2017) provides targets for the reduction of disease levels for the years 2016 and 2017 against the baseline in 2013. Defra, Welsh Government and DARD have developed a series of targets for the period between 2016 and 2020, based on previous epidemiological trends.
2. In England and Wales, there has been a decrease in both herd incidence and prevalence over a five-year rolling period, although there have been significant annual fluctuations within this decreasing trend (i.e. disease levels have increased as well as decreased between consecutive years). To produce the forecasts in this Programme, average changes in TB prevalence and incidence over the past five years have been used. In NI historical declines in annual herd incidence, combined with recent trends, were used to provide the forecasts for annual herd incidence over the period 2016– 2020. The targets may not be achieved for a number of reasons. They will be reviewed annually and amended accordingly to reflect the latest epidemiological situation.

4.2 Organisation, supervision and role of all stakeholders involved in the programme

Describe the authorities in charge of supervising and coordinating the departments responsible for implementing the programme and the different operators involved. Describe the responsibilities of all involved.

(max. 32000 chars):

Programme and Policy

1. The UK country profile compiled by the Food and Veterinary Office provides an overview of how control systems for food and feed safety, animal health, animal welfare and plant health are organised in the UK.
2. The National Control Plan for the UK details the roles and responsibilities of the different authorities and organisations involved in the monitoring compliance with, and enforcement of, feed and food law, animal health and welfare rules and plant health requirements.
3. The control, monitoring and eradication of TB, as with all animal health matters, are the responsibility of the devolved administrations of the UK. Defra is the central competent authority in the UK. The Chief Veterinary Officer is responsible in Wales and the Veterinary Service (VS) of the Department of Agriculture and Rural Development (DARD) is the designated Competent Authority for the control of TB in NI.
4. Defra, the Welsh Government, and DARD are responsible for:
 - policy
 - monitoring of the programmes
 - project management

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- change management
- provision of veterinary advice by embedded vets
- research

Delivery

5. The competent authorities for field delivery of TB control policy in the UK on behalf of the Government are set out below. The UK is compliant with Regulation (EC) No.882/2004 Article 4(5), when, within a competent authority, more than one unit is competent to carry out official controls, efficient and effective coordination and cooperation shall be ensured between the different units.

Animal and Plant Health Agency (APHA) – England and Wales

Executive Agency of Defra primarily responsible for ensuring that farmed animals in England and Wales are healthy, disease free and well looked after. The lead delivery body on TB issues, carrying out or managing:

- Routine on-farm surveillance (skin testing) including testing delegated to official veterinarians employed by veterinary businesses
 - Enhanced surveillance
 - Annual testing interval review
 - Skin test training and audit
 - Control measures
 - o Service of movement restrictions and movement licences
 - o Testing regime including IFN-gamma
 - o Isolation of reactors and public health controls
 - o Reactor removal and compensation
 - o Post-mortem examination and sampling
 - o Case management and Veterinary Risk Assessment
 - Approval of special types of production units
 - Monitoring compliance (e.g. with pre-movement testing)
 - Enforcement in conjunction with Local Authorities
 - Field epidemiology including investigation, management and control decisions for each breakdown and publication of regular epidemiological reports of the bTB situation in the Low Risk and Edge Areas
 - Laboratory support including diagnostic services
 - Provides epidemiological and data analysis, including the annual TB surveillance reports for GB, England and Wales
 - Wide-ranging involvement in TB research and development as well as taking forward specific research projects
 - Regional network of veterinary laboratories
 - Centralised tracings centre
 - Establishment of TB Epidemiology Assessment Centre in England
 - Management of contracts with the Delivery Partners private sector partners
 - Administration of the Cymorth TB veterinary programme in Wales.
 - The TB Epidemiology work in 8 study areas in Wales and taking forward agreed recommendations
 - The National Wildlife Management Centre is part of APHA, providing advice on badger ecology and trapping. DARD also avails of the National Wildlife Management Centre's expertise, most recently in the modelling associated with the early development of the TVR Research Project.
- Veterinary Service, DARD – NI
- Veterinary Service is responsible for integrated delivery of the TB programme in NI including:
- Responsibility for the real time APHIS database through which animal identity, testing and movement are controlled and recorded. This includes post mortem and laboratory test results from AFBI. Controlled access is provided to various users including farmers, markets, food business operators and Private Veterinary Practitioners (PVPs).

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- Animal registration and movement control
- Post mortem surveillance at all abattoirs
- Epidemiology
- Monitoring of programme delivery
- Export and import tracing and notifications
- Valuation and removal of reactors to slaughter
- Compensation payments
- Quality assurance
- Management of contracts with private sector partners
- Training of staff and delivery partners
- Liaison with external public health agencies, including the Health Service's Consultants in Communicable Diseases, Health and Safety Executive and Public Health Authorities
- Counter fraud measures

Agri-Food and Biosciences Institute (AFBI) – NI

Laboratory testing for tuberculosis control is currently carried out at Veterinary Sciences Division, of AFBI. AFBI is also the primary TB research provider for DARD.

Rural Payments Agency (RPA)

The RPA is an Executive Agency of Defra and incorporates the British Cattle Movement Service (BCMS). RPA is the competent authority for livestock movements, identification, imports, deaths and tracing for all cattle to be used for animal health (surveillance, planning and control) and Common Agricultural Policy (CAP) scheme subsidy control purposes (England). In Wales, whilst BCMS is also responsible for the functions outlined above, Rural Payments Wales (RPW) controls CAP scheme subsidy payments. The RPA has no role in TB Programme delivery in NI.

Food Standards Agency (FSA)

The FSA is a Non-Ministerial Government Department set up to protect public health and customer interests in relation to food in the UK. It is directly accountable to the UK Parliament via Health Ministers and publishes the advice it issues. It is led by a Board appointed to act in the public interest (not representing industry sectors). It has policy responsibility in the UK for the implementation of the EU Food Hygiene Regulations, which are enforced by the Local (food) Authorities. In England and Wales the FSA Operations Group covers post mortem examination of carcasses of cattle slaughtered for food consumption including reactors or dangerous contacts identified by APHA, slaughtered in licensed red meat abattoirs. In NI, DARD Veterinary Service's Veterinary Public Health Programme (VPH) and DARD's Agri-food Inspection Branch (AFIB) conduct meat and dairy inspections respectively on behalf of the FSA NI.

Natural England

Natural England is an Executive Non-Departmental Public Body responsible to Defra Ministers. Natural England administers licensing applications for badger trapping and culling in England.

Public Health England

Public Health England (PHE) was established on 1 April 2013 as an executive agency of the Department of Health. PHE incorporates local Health Protection Units, each of which has teams of health professionals including a Consultant in Communicable Diseases (CCDC). These are specialist doctors who risk-assess and, where necessary, instigate TB screening of human in-contacts upon receipt of a notification from APHA of the diagnosis of *M. bovis* infection in a cattle herd or other domestic animals. Public Health Wales and the Public Health Agency Northern Ireland Carry out the same functions as PHE in Wales and Northern Ireland.

Local Authorities

In England and Wales, monitoring and enforcement of animal health aspects of TB legislation will be borne by the Trading Standards Departments of Local Authorities throughout GB. Environmental Health departments of Local Authorities enforce EU feed and food (e.g. dairy) legislation. Local Authorities liaise

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at a local level with APHA in relation to enforcement of bTB legislation and with BCMS on cattle identification issues.

In NI local authorities have no role in TB programme delivery. Investigation and enforcement responsibilities lie directly with DARD in the first instance. The programme has a TB specific counter-fraud structure in place. DARD liaises with the Police Service of NI (PSNI) and other enforcement bodies as appropriate.

Natural Resources Wales

In April 2013 a new single body, Natural Resources Wales, was established and which brought together the functions of the Countryside Council for Wales, the Environment Agency Wales, and the Forestry Commission Wales.

Herd keepers

Bovine TB is a notifiable disease therefore herd keepers are legally obliged to notify suspicion of the disease. Herd keepers also have a responsibility to present all animals for testing as required.

Interference with testing or control measures is an offence.

Veterinary Practitioners

Surveillance skin tests are carried out by Official Veterinarians (OV) (in England and Wales) or APHA veterinarians and APHA veterinary paraprofessionals (fully trained lay testers working under the direction of APHA veterinary officers). In NI this testing is carried out by approved Private Veterinary Practitioners (PVPs) and DARD Veterinarians.

Contracts are in place with delivery partners who operate in seven regions across England and Wales. Each delivery partner provides a managed service of OV provision which includes surveillance skin tests. Approval of testing veterinarians requires the completion of two self-funded Official Controls Qualifications (Veterinary) (OCQ(V)). The first being OCQ(V) – ES (Essential Skills), an online course covering the skills seen as essential for all OV duties, and OCQ(V) – TT (TB Testing), an online course which is supplemented by a period of local on farm mentoring followed by a practical assessment. Once private veterinarians have passed this training APHA will provide the approval for them to operate as OVs as long as they are also members of the Royal College of Veterinary Surgeons. Regular revalidation of the qualifications are required in order to retain approval to work as an OV, this will include OVs who have initially retained approval by demonstrating “grandfather rights” i.e. they were already trained prior to the introduction of the OCQ(V) contract. Veterinarians and directly employed TB testers are subject to routine audit of performance. This includes audit of technical application of the test under field conditions.

Notes:

(i) Pre-export tests have to be carried out by a veterinary surgeon.

(ii) APHA in England and Wales has a comprehensive programme for training and assessment of non-veterinary TB testers. They are all government-employed paraprofessionals (Animal Health Officers) who undergo a rigorous training programme under the direct supervision of an approved government veterinarian. This includes completing a minimum number of TB tests, seeing and identifying a number of skin reaction types and demonstrating a minimum level of competence before appointment. They are thereafter audited, on an ‘unannounced’ basis, within three to six months of initial appointment followed by regular field audits by full-time APHA veterinary staff at the same interval and to the same clearly-defined standards as veterinary TB testers. There are currently no paraprofessionals involved in TB testing in NI.

In Wales, following a successful pilot, OVs are central to the Cymorth TB initiative which aims to provide farmers whose herds are under TB restriction with additional, bespoke support and advice concerning their breakdown and herd management with the aim of restoring Officially TB Free Status at the earliest opportunity.

Following a report by Cardiff University Social Scientists, which considered various aspects of Cymorth TB, actions arising from the pilot are being taken forward across Wales. The report of the evaluation can

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be found at: <http://gov.wales/topics/environmentcountryside/ahw/disease/bovinetuberculosis/biosecurity/cymorth-tb/cymorth-tb-evaluation-report/?lang=en>

The Cymorth TB veterinary programme is now being rolled out on a more farmer-led basis with more choice of timing and practice placed in their hands. Alongside this development, an accredited online Cymorth TB training programme for vets is being developed by Welsh Government in partnership with APHA and the training provider Improve International. It is the aim that all practices and the vast majority of vets working in Wales will be Cymorth TB qualified. The roll-out of this programme is planned for September 2015.

Valuation of cattle compulsorily slaughtered by government for TB control reasons

England

In the vast majority of cases, compensation to cattle keepers is determined using monthly table values, which reflect the average sale prices of animals in 51 different categories set out in legislation. The categories are based on the animal's age, gender, type (dairy or beef) and status (pedigree or non-pedigree). The compensation default position is to use a table valuation. Where insufficient sales data has been collected for a particular category of animal in a given month, Defra will use the most recently determined table value for that category. If that is not possible, compensation is determined through individual valuation by a professional valuer jointly appointed by the herd owner and APHA. Individual valuations are used in less than 1% of cases.

Wales

The Welsh Government is responsible for the payment of TB compensation in Wales, which is paid on the basis of market value following an individual valuation by professional "warranted" valuers. In October 2007, the Welsh Government appointed three Monitor Valuers to address concerns that farmers were being overcompensated for TB reactor cattle. This supplemented other measures which include a revised list of "warranted" valuers and the automatic justification of valuations that exceed a set threshold, currently of pedigree animals valued at £3,000 (recently lowered from £4,000 see below) or over and commercial animals valued at £1,800 or over. Compensation arrangements in Wales have been subject to review and consultation and enhanced arrangements were announced in October 2014. As part of this package, the Welsh Minister asked officials to introduce measures which will penalise cattle keepers who are undertaking risky practices, as well as better incentivise farmers to keep disease out of their herds. Work is underway to formally procure the services of valuers who undertake cattle TB valuations. The procurement framework will be in place by the end of 2016.

Northern Ireland (NI)

In NI valuations are conducted by specialist DARD valuation officers. Animals are valued at full market value. In the event of a dispute there is an appeal system involving independent valuation and/or a valuation appeals process. The work of the DARD valuation officers is subject to close monitoring and justification is required for higher valued animals. DNA tags are applied to reactor animals at TB test read off or at valuation.

Working in partnership with stakeholders

There is close liaison between the devolved administrations, including through the UK TB Liaison Group, so that an appropriate consistency of approach is maintained across GB and NI.

England

The Animal Health and Welfare Board for England (AHWBE) was established in 2011. It brings Government and its agencies together independent people with the relevant knowledge and skills, and senior government officials. The AHWBE makes direct recommendations to Ministers on strategic policy affecting the health and welfare of kept animals in England including farm animals, horses and pets (excluding the welfare of zoo and circus animals). The AHWBE convened an expert group in 2012, the Bovine TB Eradication Advisory Group for England (TBEAG) to provide advice to Defra on the development of TB strategy and its implementation. For further information see <https://www.gov.uk/government/groups/bovine-tb-eradication-advisory-group-for-england>

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There are also a number of ad hoc stakeholder groups looking at specific issues (e.g. cattle movements and biosecurity) which bring together different agencies and industry. In addition, the TB Strategy proposes the establishment of voluntary industry-led local eradication boards: farmers and others have come together to establish local eradication boards in some counties (Cheshire, Derbyshire, Cumbria/Lancashire, Gloucestershire) providing a model for local organisations to work together and take more responsibility for improving their local TB situation. These boards comprises a wide range of representatives from farming sectors, veterinarians, auctioneers, wildlife groups, local authorities and APHA. Defra works closely with AHWBE, TBEAG, national stakeholder organisations (farming, veterinary, wildlife etc.) and local eradication boards to develop policy on TB eradication.

Wales

The TB Eradication Programme for Wales is overseen by a Programme Board with membership including the farming industry, veterinary profession, APHA and the Welsh Government. In addition, three TB Regional Eradication Delivery Boards ensure that delivery of policy is specific to regional and local conditions and that it is implemented effectively. These regional boards integrate existing responsibilities and include representatives from APHA, the farming industry, veterinary profession, auctioneers, Local Authority Trading Standards and the Welsh Government.

Wales Animal Health & Welfare Framework

The Wales Animal Health & Welfare Framework is a Programme for Government Commitment which was launched at the Royal Welsh Show in July 2014 by the Deputy Minister for Agriculture and Fisheries. The Framework succeeds the previous Great Britain Animal Health & Welfare Strategy which ended in 2014. The broad vision for the new framework is to continue improving standards of animal health and welfare in Wales, building on the achievements of the former Great Britain Animal Health and Welfare Strategy. There will be increased collaboration with industry partners to develop an outcomes based approach underpinned by a robust monitoring and evaluation framework.

To support implementation of the Framework, a publically appointed Group of six experts was established in June. The Group held their first meeting in June 2014. The Group has held four meetings to date and their next meeting is scheduled for September 2015. Work is also on-going to establish topic focussed partnership networks. In July 2015, the Group published its first annual implementation plan which can be found at the following link: <http://gov.wales/topics/environmentcountryside/ahw/wales-animal-health-welfare-framework/implementation-plan/?lang=en>. Further information on the Framework can be found on the Welsh Government's website: www.wales.gov.uk/ahwframework

Northern Ireland (NI)

The TB eradication programme in NI is directed by a TB Steering Group, with TB Policy Development and TB Implementation Groups. Stakeholder engagement is conducted via the Animal Health and Welfare Stakeholder Forum and the TB Stakeholder Working Group with membership from industry, veterinary and environmental representative organisations. In addition the Veterinary Service and PVPs engage through a TB Testing Partnership Group and CVO meetings. A Government/Industry Strategic Partnership Group was established during 2014, has been meeting regularly and gathering evidence, and published an interim report on 30 June 2015. This group is presently consulting about developing a local partnership approach to TB eradication by developing constructive engagement. The TBSPG's final report, recommendations and implementation action plan are not expected until December 2015.

4.3 Description and demarcation of the geographical and administrative areas in which the programme is to be implemented

Describe the name and denomination, the administrative boundaries, and the surface of the administrative and geographical areas in which the programme is to be applied. Illustrate with maps.

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(max. 32000 chars) :

1. This programme covers England, Wales and NI. NI is considered epidemiologically distinct from England and Wales. Scotland achieved OTF status in 2009 and is not included in this Programme.
England

In January 2013, the counties in England were divided into one of two testing frequency areas: a default annual testing area in the south-west and west of the country, where the disease is endemic or considered to be at threat from disease spread, and a default four-yearly testing area in the south-east, east and north of the country, where the disease is sporadic and primarily non-indigenous. Defra views the Edge Area as a distinct area and has introduced a tailored strategy to tackle the geographical spread of disease. This includes six-monthly testing in some counties. Whilst the testing frequencies, by and large, reflect the disease situation in each area, the default annual testing area has been extended well beyond the endemic areas, with some counties allocated a higher testing frequency than required by Council Directive 64/432/EEC (as amended). In England, APHA consists of four regions, each led by a Regional Operations Director supported by a Regional Veterinary Lead (RVL) and a Regional Management Team. In terms of the holdings on the England-Wales border, the cattle measures only differ slightly and annual testing and pre-movement testing apply equally in counties on both sides of the border. Where there are differences, the 'county' indicator in the 'county-parish-holding (CPH)' number is used to determine the specific measures that apply (e.g. reactor compensation policy) to border holdings.

Wales

The Welsh Government has, since the introduction of the TB Health Check Wales in September 2008, annually undertaken whole herd TB testing of all herds (with six-monthly testing of herds in the Intensive Action Area (see below)). This approach, which is applied consistently across the twenty-two counties (Local Authorities) in Wales, is expected to remain as the foundation of the Welsh TB Eradication Programme for the foreseeable future. There is a commitment, that if and when an annual testing regime ceases, there will be no return to a parish based methodology for setting TB testing intervals. The TB Eradication Programme is primarily delivered by APHA who operate nationally through a Country Director, Operations Director and Veterinary Leads, supported by a National Management Team. This service is delivered from a number of offices across Wales but primarily Caernarfon (north Wales) and Carmarthen (south Wales).

In 2010 an Intensive Action Area (IAA) was established in west Wales where the risks associated with the principal wildlife reservoir of TB infection (badgers) would be tackled alongside additional cattle disease control measures. The IAA is approximately 288km² and is primarily located in north Pembrokeshire, but includes small parts of Ceredigion and Carmarthenshire. This is one of the areas with the highest incidence of bovine TB in Europe. See Section 4.4.7 for further information.

A lead TB Epidemiologist for Wales was appointed in April 2013 and initially six study areas were identified for detailed epidemiological analysis. The areas are located in the following regions: Anglesey, east Carmarthenshire, east Monmouthshire, Gower, Intensive Action Area and Wrexham. The project has recently been extended to a further two study areas (mid-Powys and Dyfed, west Wales) to investigate local epidemiological conditions. This work was taken forward as a pilot scheme during 2013/14 with the intention to learn lessons and to ensure that specific epidemiological conditions are taken account of during the development of local approaches. Following on from the primary analysis of the first tranche of work in the six areas, APHA has made a number of recommendations which are being taken forward on a local as well as, in some cases, national level. This project will continue to be developed and built upon for the foreseeable future in order to inform future policies.

Northern Ireland

NI is divided into ten administrative regions, each with a Divisional Veterinary Office. The Divisional Veterinary Office areas are sub-divided into "patches", each managed by a veterinary officer (VO) supported by a team of technical officers. All are subject to common direction from DARD Headquarters

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through staff instructions and IT development. NI has had a continuous programme of annual herd testing of cattle herds since 1983, which is applied uniformly for routine herd testing throughout the region. Therefore the maximum inter –test interval for herds in NI is one year, and the average (based on 2008-2013) is 8.7 months.

4.4 Description of the measures of the programme

A comprehensive description needs to be provided of all measures and detailed reference must be made to Union legislation. The national legislation in which the measures are laid down is mentioned.

4.4.1 Notification of the disease

(max. 32000 chars) :

In full compliance with Council Directive 64/432/EEC (as amended), bovine tuberculosis is a notifiable disease; under domestic legislation, any person who suspects the presence of TB in an animal within their charge is legally required to notify immediately their local APHA office (in England and Wales) or DARD in Northern Ireland (whether it is clinical signs in the live animal or tuberculous lesions in a carcass).

4.4.2 Target animals and animal population

(max. 32000 chars) :

The programme will target for surveillance and breakdown control purposes, bovine animals (including Asiatic water buffalo and bison) that are at least 42 days old in all herds kept on agricultural premises in England and Wales. In some circumstances APHA may require testing of all bovine animals in a herd, including calves less than 42 days of age. In NI all bovine animals except those that are less than 42 days old and retained in their natal herd are required to be routinely tested for TB and all bovine animals are required to be tested in restricted herds. Additionally, in GB the programme will contain certain measures to address other reservoirs and sources of TB in some non-bovine domestic and wild animals.

4.4.3 Identification of animals and registration of holdings including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

(max. 32000 chars) :

Registration of holdings – England, Wales and Northern Ireland

1. All cattle and holdings are registered in accordance with Council Regulation (EC) No.1760/2000. In England and Wales each livestock holding is identified by a unique County Parish Holding (CPH) number. This reference number is used by cattle keepers in England and Wales to register holdings and to report individual cattle movements to the Cattle Tracing System (CTS) operated by the competent authority: the British Cattle Movement Service (BCMS).

2. In England, all fields and buildings making up a holding must be within a 10-mile radius of the main site for cattle and pigs and 5 miles for sheep and goats. Land under the same ownership beyond the 10-

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or 5-mile radius, are allocated a separate CPH number.

3. In Wales, cattle keepers with separate holdings are allocated different CPHs. The 5-mile rule applies for the movement of sheep and goats.

4. In NI, cattle are registered with the central authority and each has been allocated a unique individual identity linked to an individual herd number which facilitates tracing of animal movements and testing history. All registered premises are recorded on a central computer database, the Animal and Public Health Information System (APHIS). Full details of the testing programme are maintained on the database.

Cattle identification - England and Wales

5. Cattle are identified by a unique animal identification number which is provided by BCMS. The CTS ensures the traceability of cattle from birth to death. It underpins all disease control programmes for cattle, including bovine TB and provides general assurance for consumers of the place of origin and traceability of beef and dairy products.

All cattle born on or after 1 January 1998 must have an approved ear tag in each ear, bearing its unique identification number, which will remain with the animal throughout its life. For cattle born on or after 1 July 2000, the unique identification number must be a UK 12-digit numeric ear tag.

- Animals born or imported into GB, before 1 January 1998 may continue to be identified by a single tag.
- All cattle must be tagged within 20 days of birth, although in the case of dairy animals, at least one of the tags must be fitted within 36 hours of birth.

- All cattle born or imported into GB, on or after 1 July 1996, must have a valid cattle passport. This details the unique eartag number given to the animal, movement history between holdings (farms/markets/slaughterhouses), the breed, sex, dam identification, holding and date of birth of the animal. Passports must be applied for within 27 days of birth (within 7 days of the 20-day tagging deadline).

- Details of all births, movements between holdings (farms, markets and slaughterhouses) and deaths of individual cattle, must be notified to the BCMS for entry on the central database, the Cattle Tracing System (births within 27 days of the event, movements within 3 days of the event, death within 7 days of the event).

- Unannounced inspections, based on a risk analysis of holdings, will be carried out by payment agency inspectors on 3% of holdings, to check that keepers are complying with all cattle identification and registration requirements, and an annual report on the results will be sent to the Commission as required by Commission Regulation (EC) No. 1034/2010.

- If errors are found cattle movement restrictions may be imposed (such as individual or whole herd movement restrictions).

- Any keeper found to be deliberately breaking the cattle identification rules may be prosecuted. If the courts find that a keeper is guilty of an offence they may impose penalties, including fines of up to £5,000 and possible custodial sentences, or £10,000 and custodial sentences under fraud legislation.

Cattle identification - Northern Ireland

6. All cattle herds in NI are registered with the central authority and each has been allocated a unique herd number to facilitate tracing of animal movements.

- All registered premises are recorded on a central computer database (APHIS).

- Under Council Regulation (EC) No. 1760/2000 cattle are identified by means of a unique identification number authorised by DARD.

- All cattle born after 1 January 1998 are identified with an ear tag in each ear bearing the same unique identification number, which will remain with the animal throughout its life.

- All cattle born after 1 January 2000 must be tagged using all numeric tags.

- Each animal's test results and movement details are held and are readily accessed on a computer database (APHIS).

- Epidemiological investigation and full tracing procedures in compliance with Council Regulation (EC) No. 1760/2000 are instigated following the detection of a diseased animal.

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- Cattle Identification inspections are carried out as required by Commission Regulation (EC) No 1034/2010. Additional audit is carried out through routine TB testing.

4.4.4 Qualifications of animals and herds including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

(max. 32000 chars):

There are no herds of unknown TB status in the UK. Maintenance, suspension, withdrawal and re-qualification of OTF herd status will be in accordance with Council Directive 64/432/EEC (as amended).

Domestic Legislation:

- Tuberculosis (England) Order 2014; Tuberculosis (Deer and Camelid) (England) Order 2014; and Tuberculosis (Deer and Camelid) Slaughter and Compensation (England) Order 2014
- Tuberculosis (Testing and Powers of Entry) (Wales) Order 2008; Tuberculosis (Wales) Order 2010; Tuberculosis (Wales) Order 2011; and Tuberculosis (Miscellaneous Amendments)(Wales) Order 2014
- The Tuberculosis (Examination and Testing) Scheme (NI) 1999; Tuberculosis Control Order (NI) 1999 (as amended); Tuberculosis Control (Amendment) Order (NI) 2004; Tuberculosis Control (Amendment) Order (NI) 2005; and Tuberculosis Control (Amendment) Order (NI) 2012

4.4.5 Rules of the movement of animals including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

(max. 32000 chars):

England and Wales

1. In accordance with Council Directive 78/52/EEC (Article 14) whilst an investigation is being carried out, the OTF status of the herd will be suspended or withdrawn and placed under official surveillance. Movements of cattle into the affected herd and to other herds will not be permitted, except in prescribed circumstances to a limited number of destinations under licence and subject to a satisfactory veterinary risk assessment.

2. In England in November 2013, a new risk-based trading initiative was introduced. Farmers are encouraged to find out further details of the TB history of the stock that they are buying. This includes the date of the animal's last pre-movement test; the date of the seller's last routine herd test; and the date the herd achieved OTF status if it has had a TB breakdown. We are working with auction markets to display this information to buyers. Defra are seeking views on whether this should be made compulsory, and the possibility of developing a TB risk score for each holding in England.

3. The Welsh Government has established a grant to enable livestock markets to buy equipment such as display boards and screens, and any new or update to back-office software in order to allow vendors to display information about the cattle they are selling. It is anticipated that by making information available at the point of sale will enable them to understand the potential health risk of the cattle they are buying and discourage the purchase of cattle without knowing their history. The Welsh Government is offering to fund up to 50% of the cost of purchasing such items. The maximum amount of funding that is offered is £2,500 per site and there are around 24 markets in Wales.

Movement of animals FROM a 'restricted' holding

4. In England and Wales, controlled cattle movements off TB restricted premises are permitted in limited and prescribed circumstances for animal welfare or business viability reasons. All movements from a

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restricted holding must be supported by a written, satisfactory Veterinary Risk Assessment (VRA) completed by an APHA Veterinary Officer. Field instructions are provided to APHA staff to ensure VRAs are objective, consistent and robust. Most licensed movements are to slaughter, either directly or via an Approved Finishing Unit (AFU); a very small proportion are to other TB breakdown herds ('T2 to T2').

5. AFUs have been in operation in England and Wales since 2003 to enable non-OTF herds to sell surplus animals for fattening whilst mitigating risks of disease transmission. We reviewed and enhanced the enforcement of AFU rules in 2013. The EU Task Force endorsed the use of AFUs both in its report of its visit to the UK and in its updated working document published in 2013. APHA undertakes unannounced compliance inspection of all AFUs, in addition to any application or re-application inspections.

England

6. AFUs in England provide an outlet for the fattening and/or finishing of cattle from TB-restricted holdings that do not have such facilities. Cattle keepers wishing to set up an AFU must submit an application to APHA and comply with strict bio-security conditions, which are subject to regular audit checks. There are different types of AFUs, with some differences in operating rules:

- Housed AFUs in the Edge and High Risk Areas – these can source stock from non-OTF and OTF herds;
- AFUs with grazing – only permitted in the parts of the High Risk Area where there have been OTF breakdowns and epidemiological investigations indicate infected wildlife is a problem. These AFUs can source stock from non-OTF and OTF herds;
- Housed AFUs in the Low Risk Area – these are not permitted to source cattle from non-OTF herds. They can only bring in cattle from OTF herds, which must also undergo statutory pre-movement tests with negative results where applicable.

Statistics for 2015: There are 236 AFUs in England, 100 of which are AFUs with grazing. The AFUs received just under 90,000 cattle (compared to total 6.5 million cattle moved in GB) – around half of these animals are sourced from TB restricted herds. 136 of the AFUs are non-grazing indoor units that have to be wildlife proof and can only be approved in annual TB surveillance areas. AFUs with grazing are only allowed in parts of the High Risk Area where badgers are already considered to be a significant source of TB breakdowns in cattle herds locally. Rigorous bio-security conditions are included in AFU operating approvals and all units, including the AFUs with grazing, are inspected annually to ensure compliance. All movements are audited. In August 2015, Defra launched a public consultation on proposals for changes to AFUs with grazing as part of a wider package of cattle measures.

7. AFUs are permanently placed under movement restrictions and can only regain OTF status if fully depopulated. Cattle reared in those units can only move under licence directly to slaughter (the vast majority) to slaughter via an approved gathering or to another AFU for further fattening before slaughter.

Wales

8. There are twelve AFUs in Wales which are required to operate to a strict set of conditions and are regularly audited. These conditions include that the AFUs must be indoors, have no grazing, be wildlife proof and can only be established in a high TB incidence area. Once an animal is moved to an AFU it can only go to slaughter

9. On 1 January 2013 (and from 1 April 2013 in Wales) controls in England were tightened further - cattle moved (to live) between TB-restricted herds ('T2 to T2') must have had a clear TB test within the 30 days preceding the movement, previously cattle could move up to 60 days after a clear test.

10. Previously, in exceptional circumstances, epidemiologically separate groups of cattle not within or contiguous to the same land parcel on which the infected group of cattle are kept, we considered lifting restrictions on different groups of cattle at different times. Since October 2014, APHA stopped any partial de-restriction of TB-breakdown holdings in England and Wales: movement restrictions apply to all cattle on the holding (CPH) for the duration of the breakdown i.e. until all the animals have achieved OTF

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status and the restrictions are lifted on the CPH. Cattle on all land parcels that comprise the entire holding are ineligible for export from the UK whilst a holding is under restriction.

11. Additionally, we carry out pre-export checks to ensure that eligible cattle for export have not been resident in the previous 180 days on any holding with some form of ongoing TB restriction (i.e. OTFS or OTFW) or with unresolved TB inconclusive reactors. In its updated working document published in 2013, the Task Force has advised that national legislation should empower the veterinary services to make the necessary decisions in order to guarantee that the appropriate epidemiological unit is used as the primary unit of concern for all the measures of the programme.

Movement of animals INTO a 'restricted' holding

12. In England and Wales, licensed cattle movements on to all new breakdown herds (both OTFW and OTFS) will only be considered after the herd's first official post-breakdown test and the removal of all cattle positive to the skin test (i.e. all cattle remaining have not been categorised as a reactor) and will additionally be dependent on a satisfactory veterinary risk assessment. Any inconclusive reactors must be isolated from the remainder of the herd and retested. Restocking licences may be withdrawn as part of the enhanced management of persistent TB breakdowns.

13. In England, the Government plans to review TB compensation with the objective of encouraging risk-reduction. In Wales, the Minister has asked officials to introduce measures which will penalise cattle keepers who are undertaking risky practices, as well as better incentivise farmers to keep disease out of their herds. Any such changes would require changes in domestic legislation.

Northern Ireland

14. Maintenance of herd registers and ear tag specification is compliant with Council Regulation (EC) No. 911/2004. Since 1 January 2000, producers notify the Department within seven days of movement of an animal using self-written movement control documents. Markets must notify movements to DARD by the end of the next working day. In the case of a restricted animal the producer is required to obtain a movement licence from DARD before moving the animal from their herd direct to slaughter only. All movements are recorded and traceable on APHIS. All eligible animals on farms are checked against official records at cattle identification inspections and at TB herd tests, as well as checks at markets and slaughterhouses. If any discrepancy from APHIS details remains unresolved a movement restricting animal status is applied. If identification and traceability of an animal cannot be established at point of slaughter, the carcass is removed from the human food chain. If the disease status of an animal on farm cannot be established the animal is isolated and tested.

15. OTS and OTW herds are immediately subject to appropriate movement restrictions through APHIS. In the vast majority of cases, NI only permits movement out of OTS or OTW herds direct to slaughter within NI, except where OTS status is applied due to an unresolved inconclusive animal where there is no history of the herd having OTW status applied for disease reasons within the previous three years as per derogation under Annex A 3.A(d) to Council Directive 64/432/EEC (as amended). Cattle movements from TB breakdown herds to other herds are not allowed. However, in very exceptional circumstances (e.g. for welfare reasons, lack of feed for animals, etc.) which cannot be resolved by any other means and under strictly applied conditions required to mitigate the recognised risk, a specific move may be sanctioned. This is in line with Section 3.7 of the SANCO/10067/2013 "Working Document on Eradication of Bovine Tuberculosis in the EU Accepted by the Bovine tuberculosis subgroup of the Task Force on monitoring animal disease eradication", which states "Movement restrictions may present major practical or animal welfare problems in particular situations. Derogations are not allowed in the current legislation on eradication. However, after a careful assessment of the individual risk, certain movements may be regarded as of low risk and a reasonable balance between sustaining industry and disease eradication may be achievable." In NI, such movements from restricted epidemiological units (except directly to slaughter in NI) are approved only in very exceptional welfare circumstances, each case being considered by the Veterinary management prior to managerial sign off and following disease risk assessment in accordance with Veterinary Service staff instructions. In such cases the recipient herd

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becomes part of the breakdown epidemiological unit acquiring the OT status of the original breakdown herd, along with the accompanying restrictions and testing regime. A separate time-bound prescriptive protocol with its own specific staff instruction exists to facilitate limited movement only to other TB breakdown herds from breakdown herds experiencing exceptional farm management problems in the event of severe weather events, but these have seldom been required. In NI, movement into OTS and OTW breakdowns is prevented where considered epidemiologically prudent by a VO following a risk assessment, and in all cases, where clinical disease is identified and for a sixty-day period following any full herd depopulation. Herds with a significant delay in testing schedule are also prevented from moving cattle onto their premises. The Veterinary Service staff instruction further states that it is inappropriate to allow animals to enter a herd, when there is a high risk of both exposure to M.bovis, and of such animals being removed as reactors.

16. Where a routine herd test becomes overdue, increasingly stringent movement controls are applied routinely as below:

- Immediately overdue, no live moves to market, export, or other holdings.
- 1 month overdue, no live moves to market, export, other holdings or slaughter. No moves in are allowed except one breeding bull on exceptional licence.

OTW status movement

- No live animal movements out except directly to slaughter in NI.
- If considered epidemiologically appropriate in situations other than those already specified, movement restrictions may be increased to prevent all movement off farm and movement onto farm.

OTS status movement

- Live movement out only directly to slaughter in NI.
- OTS herds with the status reason "IC (inconclusive)in herd where TB not confirmed in < 3 yrs" are derogated under Annex A 3.A(d) to Council Directive 64/432/EEC (as amended) to allow local live movement within the UK. However, animals from the herd or those that have originated in the herd since the last clear herd test are not allowed to be exported to another MS.
- If considered epidemiologically appropriate, movement restrictions may be increased to prevent all movement off farm and movement onto farm.

Pre-movement testing of cattle in England and Wales

17. England and Wales are fully compliant with the current pre-trade TB testing requirements under Council Directive 64/432/EEC (as amended). England and Wales can avail of the derogation available in Annex A 1.1(c) to Council Directive 64/432/EEC (as amended) for intra-MS movements where animals from an OTF herd are not required to be pre-movement tested.

18. However, to reduce the risk of TB spread pre-movement TB testing (PrMT) within 60 days is mandatory under English law for cattle aged six weeks and over moved from OTF herds in England subject to annual (or more frequent) routine surveillance testing (or those subject to radial testing). As well as preventing additional new breakdowns this policy is a helpful surveillance tool supplementing the routine TB herd testing regime and slaughterhouse surveillance.

19. In England, the only eligible movements (mostly to slaughter either directly or via finishing units) that remain exempt from national PrMT rules are movements of cattle:

- Directly to slaughter;
- To slaughter via a market from which all animals go to slaughter;
- To slaughter via Exempt Finishing Units approved to take cattle which have not had a PrMT;
- To slaughter or to Approved Finishing Units via Exempt Markets approved to take cattle which have not had a PrMT (cattle from Exempt Markets may return to their origin premises if it is in an annual tested area);
- From restricted herds to slaughter via Approved Collection Centres;
- From restricted herds to slaughter via to Approved Finishing Units;
- From holdings that are subject to routine annual testing solely for public health reasons (farms open to

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the public and producers-retailers of unpasteurised milk) and would otherwise be on four yearly testing;

- From approved semen collection centres (because of their high health status);
- For veterinary treatment (provided that the animal is returned to the premises or origin or moved directly to slaughter);
- To agricultural shows where cattle are present for less than 24 hours on site and no cattle are housed i. e. in a covered area with sides which includes marquees; and
- Under specific written exemption granted by APHA.

20. In Wales all cattle movements, subject to a number of exemptions set out in a Ministerial Direction, require a clear PrMT 60 days prior to any movement being made. These exemptions are subject to continual monitoring and, following a review in 2012/13 and further tightening of permitted movements not requiring a TB test in April 2013, a further review of the remaining exemptions took place in late 2013.

21. Following the removal of the exemption pertaining to movements within SOAs, the remaining exemptions to PrMT in Wales which are currently subject to review will include cattle under six weeks of age and movements of cattle:

- Directly to slaughter or a slaughter market;
- Returning from market to the holding from which they travelled;
- To (PrMT) Exempt Finishing Units or (PrMT) exempt markets;
- Directly to Approved Finishing Units for cattle under movement restrictions for TB;
- From restricted herds to slaughter via Approved TB Collection Centres;
- From holdings that are subject to routine annual testing solely for public health reasons (farms open to the public and producers-retailers of unpasteurised milk) and would otherwise be on four yearly testing;
- From herds subject to four yearly routine TB testing in England and Scotland (there are no 4 year testing areas in Wales at the moment);
- From approved semen collection centres (because of their high health status);
- For veterinary treatment (provided that the animal is returned to the premises or origin or moved directly to slaughter);
- Between their registered holding and commons in relation to which their keeper has rights of grazing (mandatory PrMT is necessary for cattle that are moved from commons to premises other than their main premises). The Welsh Government will remove this exemption from 31 December 2015;
- To un-housed shows of less than 24 hours in duration and returning to the holding from which they travelled; and
- Any movement that is approved by the Welsh Ministers.

22. GB Statistics on PrMT are available at <https://www.gov.uk/government/statistical-data-sets/other-tb-statistics>.

23. NI is fully compliant with the current requirements of PrMT under Council Directive 64/432/EEC (as amended) with regard to the use of the Single Intradermal Test for MS certification. NI avails of the derogation available in Annex A 1.1(c) to Council Directive 64/432/EEC (as amended) for intra-MS movements where animals from an OTF herd are not required to be pre-movement tested. In addition to Council Directive 64/432/EEC (as amended) requirements, in NI any animal that has not undergone an animal level test within a period of 15 months must undergo a pre-movement test before live movement except directly to slaughter in NI. There are no clearly geographically defined areas of significantly higher or lower prevalence, only geographical shading of prevalence. There tends to be clustering of disease at a very local area. More herds in these clusters are TB restricted and cannot move cattle except to slaughter, while herds that are deemed to be at risk following veterinary risk assessment carried out in accordance with Veterinary Staff instructions, are tested every four months. Therefore advantages of pre-movement testing in such areas will be minimal in the context of existing controls. Further pre-movement testing is of most benefit where there are large inter-test intervals. This will be less effective in NI where the maximum herd inter-test interval is one year, and the average is 8.7 months (based on

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2008-2013). A 2015 DARD Veterinary Epidemiology Unit paper concluded that even considering the most effective risk based options; a preliminary calculation shows no positive outcomes of PrMT implementation in NI. Contributory factors to this conclusion, apart from the highlighted lack of spatial segregation of bTB prevalence and short inter test interval, include a low predicted disclosure rate, the majority of herds experiencing no intra-herd spread following the introduction of infection with purchased cattle, the inability of the SICCT to accurately detect all infected cattle, and IFN-gamma testing not being a cost effective option.

4.4.6 Tests used and sampling and testing schemes including detailed reference to relevant Union legislation and its implementation in the Member State for this disease (including herd frequency, animal coverage in each herd, interpretation of the test,...)

(max. 32000 chars) :

Types of tests used

1. The Single Intradermal Comparative Cervical Tuberculin (SICCT) test is the primary screening test for bTB in the UK. There is also veterinary discretion to increase the sensitivity of the test by altering its interpretation in situations other than those specified where severe interpretation is mandatory. For example, severe interpretation is used for short interval tests of all OTFW herds and in OTFS herds in the Edge Area in England. For export certification the single intradermal test (SIT) is applied in accordance with Council Directive 64/432/EEC (as amended).
2. In line with Council Directive 64/432/EEC (as amended) the IFN-gamma (Bovigam™) test will be used as a parallel test, alongside the tuberculin skin test in specified circumstances. Using both tests in parallel in this way enhances the sensitivity of testing so enabling as many infected cattle in a herd as possible to be identified and removed from the herd at the earliest opportunity. Between 2013 and 2014, the number of IFN-gamma tests in GB increased from around 48,000 to around 92,000.
3. In England, the use of the IFN-gamma test will be mandatory in OTFW herds in the Low Risk and Edge Areas and discretionary in OTFS herds in these Areas; the objective being to reduce the risk of new, intractable TB hotspot areas becoming established in hitherto low prevalence areas and to prevent the expansion of the high risk area. IFN-gamma will also be used on a discretionary basis in persistent or more extensive OTFW breakdowns in the High Risk Area.
4. In Wales, the IFN-gamma blood test will be used in specific OTFW herds as an ancillary parallel test to enhance sensitivity in areas deemed of lower risk and elsewhere when epidemiological evidence suggests it is warranted. APHA set up a new IFN-gamma testing laboratory in south-west Wales (Carmarthen) in 2015 providing an additional annual capacity of some 20,000 tests.
5. In NI, IFN-gamma testing is extensively used where it is considered epidemiologically appropriate. It is undertaken within practical limits determined by laboratory facilities and capacity, but is used at a proportionately high level. It is currently targeted at removing additional infected animals from breakdown herds, but its application is under review to optimise its future use.

Routine tuberculin skin herd testing programme

6. All herds and animals are included in the monitoring programme. The herd owner is responsible for arranging scheduled tests under the routine surveillance programme, which is paid for by Government. Herd owners are given advance notice of the two- or three-month window (one-month window in NI).
7. In England and Wales, test notification letters are sent centrally from the Regional Delivery Partners contracted by Defra and Welsh Government, to ensure consistency of notification across England and Wales. Official Veterinarians (OVs) are notified of the due dates for their clients' herd tests. In NI, completion of a routine herd test automatically generates a letter stating the due date of the next test, to whom the next test is allocated, the OTF status of the herd and the implications of not testing on time. A

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further letter is generated two months in advance of the due date reminding them of the due date, advising them to contact the practice/Testing Officer to whom the test is allocated and reminding them of the implications of not testing on time. All NI TB testing practices have electronic access to tests that are allocated to them.

Overdue Testing

8. To encourage compliance with the tuberculin testing programme, a zero tolerance regime for overdue tests was introduced in February 2005, whereby a herd's OTF status is automatically suspended as soon as a TB test becomes overdue. Movement restrictions are applied immediately and APHA actively manage these cases through a combination of formal warnings and staged sanctions.

9. In England, Defra introduced from July 2012 new compensation rules – herd owners who fail to test by prescribed deadlines risk receiving reduced compensation (reduced by up to 95%) if reactors are disclosed when the herd is tested. Once tested, a herd is marked forward in the APHA database for its next TB test according to the normal TB testing frequency for the area and taking also into account the herd's TB history and TB risk factors.

10. A similar process has been in place in Wales since 2010. Under the Tuberculosis (Wales) Order 2010, the Welsh Government is able to calculate compensation at less than market value, for example when a farmer fails to arrange a TB test on time, or due to other breaches of the Order. A further strengthening of this legislation, by means of a new TB Order is intended to further promote best practice and align compensation levels with appropriate behaviours, widen and clarify circumstances in which a Veterinary Improvement Notice might be served and extend the ability to recover costs in cases of non-compliance. The Welsh Government will consult between August and November 2015 on a variety of policy enhancements with a view to changes coming into force in early 2016. Details of the consultation can be found in section 4.4.10.

11. Since January 2014, herd owners with overdue TB herd surveillance or check tests have been referred for a penalty reduction in the CAP scheme subsidy payments, and to the Local Authority for prosecution. In 2015, this approach was extended to all overdue TB tests (except tracing tests). Since January 2014 Welsh Government has been tightening up cross compliance penalties for late TB tests. In January 2015, this policy was strengthened to include all overdue test cases (not just those identified at cross compliance inspection).

12. In England in March 2014, a new legal power was introduced to enable the slaughter of wild / untestable cattle. In Wales, the reasonable costs incurred in carrying out such action may be recovered from the cattle keeper in these cases.

13. A similar procedure for overdue testing has been in force in NI since November 2004. Once tests are overdue in NI, OTF status is automatically suspended followed by increasingly severe sanctions applied automatically each subsequent month. This culminates in OTW status after three months and potential prosecution. To encourage compliance with the tuberculin testing programme cross compliance measures in NI have been progressively tightened in 2014 and 2015 to mitigate the greatest risks from overdue testing.

14. An enhanced OV auditing programme has been developed and implemented by APHA to provide more robust quality assurance of veterinary training and skills on TB to supplement existing training of its own TB testers and Official Veterinarians. In NI, in addition to DARD's formal audit process for the quality assurance of PVPs' testing, the procedures for the approval of new PVPs were amended in May 2013 to include assessment of the candidate's ability to carry out maintenance tasks on a McClintock syringe.

Inconclusive reactors (IRs)

15. In compliance with Council Directive 64/432/EEC, cattle with an inconclusive result in OTF herds are isolated, re-tested once after 60 days and compulsorily removed as reactors if they do not pass this second consecutive test. Herd owners may voluntarily arrange for private slaughter of such animals instead of waiting for the re-test. In OTFW breakdown situations, IRs may be re-classified as reactors at

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the severe interpretation of the skin test or removed as direct contacts before retesting.

16. In England and NI, if an animal in a TB breakdown herd is classified as an IR on either standard or severe interpretation and fails to clear on subsequent retesting, then the animal is removed as a reactor. Herd keepers can opt to slaughter IRs voluntarily before the second test. The test interpretation methodology used in England is provided in APHA instruction TB 64 (E/S) & TB 64A (E/S).

17. Wales is fully compliant with Council Directive 64/432/EEC in respect of inconclusive reactors to the comparative test at the test interpretation indicated within Annex B section 2.2.5.3.2. All animals which are twice inconclusive reactors at consecutive tests read at standard test interpretation are deemed to be reactors and slaughtered.

18. In Wales the criteria for comparative test interpretation to improve test sensitivity is modified based on epidemiological consideration of the breakdown. This severe interpretation of the comparative test results in some animals which pass the test at standard interpretation, being classified as inconclusive at a severe test interpretation. Any of this cohort of animals which is inconclusive at consecutive tests, solely as a result of one or both of the tests being read at severe interpretation, is IFN-gamma blood tested and if IFN-gamma test negative is permitted one further skin test which must be passed, otherwise animals are deemed to be reactors and slaughtered.

19. The test interpretation methodology used in Wales is provided in APHA instruction TB 64 (W) & TB 64A (W).

Reaction Result at Standard Interpretation

PASS (retain)

- Animals showing a negative bovine reaction and a positive or negative avian reaction.
- Animals showing a positive bovine reaction equal to or less than a positive avian reaction.

INCONCLUSIVE (retest)

- Animals showing a positive bovine reaction not more than 4mm greater than a positive avian reaction.
- Animals showing a positive bovine reaction and a negative avian reaction where the difference is 4mm or less.

FAIL (remove)

- Animals showing a positive bovine reaction more than 4mm greater than a negative or positive avian reaction.

Reaction Result at Severe Interpretation

PASS (retain)

- Animals showing a negative bovine reaction.
- Animals showing a positive bovine reaction and positive avian reaction, where the avian reaction is more than 2mm greater than the bovine reaction.

INCONCLUSIVE (retest)

- Animals showing a positive bovine reaction and positive avian reaction, where the bovine reaction is either 1 or 2mm less, equal to, or 1 or 2mm more, than the avian reaction.

FAIL (remove)

- Animals showing a positive bovine reaction and negative avian reaction.
- Animals showing a positive bovine reaction more than 2mm greater than a positive avian reaction.

Imported cattle

20. All cattle imported into the UK must comply with the TB certification conditions set out in Council Directive 64/432/EEC (as amended).

21. For imports into GB from NI and the Isle of Man, cattle are subject to PrMT within 30 days of departure using the comparative skin test. Additionally, post import skin testing of cattle from NI, the Republic of Ireland, and any non-OTF EU Member States is conducted 60 to 120 days after arrival in GB, unless the animals are destined for direct slaughter. Post-import TB tests are performed at Government's expense. Movement restrictions are not applied to either the animal or the herd during this period before the test is conducted (unless the post-import test is overdue). Based on a risk assessment, it may

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also be necessary to carry out TB checks and testing of certain consignments from third countries.

Trade of cattle to other EU Member States

22. Cattle of at least 42 days of age that are intended for intra-EU trade are TB tested in the 30 days prior to the date of trade (as per Article 6 of Council Directive 64/432/EEC (as amended)) using the single intradermal comparative cervical test. However, only the bovine reaction will be considered when interpreting the test results in such animals. In line with point 2.2.5.3.4 in Annex B to Council Directive 64/432/EEC (as amended), any animals showing a positive bovine reaction (i.e. an increase in the skin fold thickness greater than 2 mm or the presence of oedema 72 ±4 hours after tuberculin injection) will not be certified for intra-EU trade.

23. Additionally in England and Wales pre-trade checks are carried out to ensure that eligible cattle for export have not been resident in the 180 days on any holding with some form of on-going TB restriction (i.e. OTFS or OTFW) or with unresolved TB inconclusive reactors.

24. If a herd which has undertaken intra-EU trade subsequently loses its OTF status, Defra will notify the Competent Authority in the recipient Member State.

Slaughterhouse surveillance

25. Routine post-mortem meat inspection of cattle carcasses is a key part of the TB surveillance system. In GB approximately two million cattle are slaughtered each year. All cattle sent to slaughter for human consumption are inspected for signs of TB and all suspect tuberculous lesions in carcasses must be notified to APHA without delay.

26. Slaughter surveillance is, by definition, reactive and driven by multiple factors, including the sensitivity of the tuberculin herd testing programme and the rate of infection in cattle. It is, therefore, difficult to set precise targets for granuloma submissions in an endemic TB situation, such as in England and Wales. Nevertheless, post-mortem meat inspection of cattle is a key element of the bTB surveillance system and this is set to continue in the next years. In 2014 APHA investigated tissue samples (granulomas) from 1,498 cattle carcasses with suspected TB lesions at routine slaughter in England and Wales (1,660 in 2013), of which 1,070 (71%) yielded *M. bovis* on culture (1,148 (69%) in 2013). Slaughter TB surveillance enabled the detection of 20.7% of all new OTFW breakdowns in British cattle herds during 2013, down from 21.2% in 2012 and 23% in 2011, but still a significant contribution to the overall bTB surveillance effort. Defra and Welsh Government have commissioned research (mathematical modelling) into this field that should help us establish whether the current detection rates are consistent with the estimated prevalence of infection in cattle and whether granuloma submission targets should be set for specific slaughterhouses. In the meantime, a more detailed analysis of bTB slaughterhouse surveillance in GB is available at:

<https://www.gov.uk/government/statistics/bovine-tb-surveillance-in-great-britain>

27. In NI 0.4-0.47 million cattle are slaughtered each year. There are 10 licensed cattle slaughter plants and all cattle killed are examined post mortem by DARD employed meat inspectors. The number of culture positive LRS animals and associated data figures are recorded to Divisional level in the monthly official statistics and are monitored by programme management. In NI during years 2009 to 2014, the disclosure rate of suspected TB granulomas at routine slaughter (LRS) of cattle which had not been imported directly to slaughter ranged from 958 – 1192 cases per annum or 0.229% to 0.305% of cattle slaughtered. The TB confirmation rate (histology and / or culture positive) for LRS ranged from 60.42% to 67.91% per annum. It is expected that both disclosure and confirmation rates will remain similar during 2015.

Control in non-bovine domestic animals

28. Suspicion of TB in the carcasses of non-bovine farmed species and pets is notifiable. Passive surveillance will continue to be carried out on domestic livestock other than cattle (farmed deer, sheep, pigs, camelids and goats) mainly by meat inspection in animals going through licensed abattoirs and, in the case of camelids, by scanning surveillance in APHA regional laboratories (post-mortem and bacteriological culture of suspected clinical cases).

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29. Regulations providing statutory compensation to keepers of TB affected camelids removed to slaughter came into effect in England in October 2014 when mandatory TB skin and blood tests were rolled out for breakdown herds. These Regulations also replaced the existing TB deer regulations. In August 2015, Defra launched a call for views on controlling TB in non-bovine animals such as pigs, goats, and deer.

30. In Wales, TB surveillance in non-bovines is reactive. The Tuberculosis (Wales) Order 2011 provides APHA with the powers needed to deal effectively and quickly with incidents of TB in certain non-bovine animals (camelids, goats and deer) similar to those available in relation to bovines. The Order also provides for statutory compensation for any of these non-bovine animals that are removed and slaughtered as TB reactors. These are set compensation figures (up to £1,500) rather than individual valuations as in the case of TB reactor cattle. A new policy for the TB testing of South American camelids, such as alpacas and llamas, has been introduced by the Welsh Government with the mandatory use of both the skin test and blood (antibody) tests in skin test negative animals where *M. bovis* infection has been confirmed in a herd and when animals moved from infected herds are tested. This new policy has been introduced in order to improve the detection of infected animals, clear up infection quicker and reduce the spread of disease from infected herds.

31. In NI, disease confirmation in a non-bovine species is considered in relation to the risk to bovine population, and neither vaccination nor treatment of non-bovine animals is permitted.

32. Vaccination of non-bovine domestic animals against TB is prohibited.

4.4.7 Vaccines used and vaccination schemes including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

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Wildlife Controls including badger vaccination England

1. Following two public consultations in 2010 and 2011, Defra announced that it would pilot a badger culling policy in two areas of high bTB incidence in the West of England. In September and October 2012 respectively, Natural England issued two four-year licences for culling in Gloucestershire and Somerset. The purpose of the six-week pilots in 2013 was to confirm assumptions about how effective (in terms of badger removal) humane and safe it would be to use controlled shooting of free-ranging badgers (in addition to cage trapping and shooting) as a method of removing badgers. An independent expert panel (IEP) reviewed the humaneness, effectiveness and safety of the controlled shooting technique in the six-week pilots in 2013. Defra published the IEP's report in 2014, together with results of APHA monitoring. Defra responded to the IEP's recommendations and the second year of culling in Gloucestershire and Somerset took place in 2014.

2. In August 2015, Natural England issued a four-year licence for culling in Dorset. The third year of culling in Somerset and Gloucestershire and the first year of culling in Dorset started in 2015.

3. In August 2015, Defra launched a public consultation on changes to the criteria for future badger control licences. Defra Ministers will be responsible for taking decisions on any extension of the culling policy to additional areas in 2016 and beyond.

4. The first injectable badger vaccine, 'Badger BCG', received Marketing Authorisation in the UK in March 2010 and is available for use under veterinary prescription. The vaccine was used in the Government-funded Badger Vaccine Deployment Project in Gloucestershire between 2010 and 2014, and is being used by others such as the National Trust and local Wildlife Trusts.

5. In April 2014 Defra announced a grant scheme to support private badger vaccination projects within the Edge Area of England, in an attempt to protect badger populations and slow down the geographic spread of the disease in this area, in conjunction with the enhanced surveillance and control measures in

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cattle. Launched in September 2014, the Badger Edge Vaccination Scheme (BEVS) is supporting six privately-led vaccination projects in the Edge Area of England starting in 2015. Support includes advice, training, cage traps, cost of vaccines and match funding.

6. In the medium to long term an oral badger vaccine may be a more practical, cheaper option than using the injectable badger vaccine, but this is still at the research stage. Work underway includes:

- Formulation and bait development;
- Efficacy and safety studies;
- Field deployment studies; preparing and submitting a licensing dossier for assessment by the Veterinary Medicines Directorate.

7. We are working to develop and validate more practical, sensitive and specific diagnostic assays for TB in badgers, as part of the research programme in England and Wales. This would allow us to better understand the scale of badger infection in terms of geographical area. Such tests could mean that future interventions are targeted at individual badgers or setts, rather than the wider population. They could also help us judge how effective vaccination might be in a specific area. The research that Defra is concentrating on includes:

- Non-invasive tests to identify infected badgers, including the development of blood sampling devices; and
- Tests to identify setts and areas where infected badgers are resident, such as tests to detect bovine TB bacteria in environmental samples, including use of polymerase chain reaction (PCR) tests.

Wales

8. A Welsh Government project to vaccinate badgers using "BadgerBCG", administered via injection, in the IAA (approximately 288km²) in west Wales began in May 2012. In line with the recommendations of the Wales Vaccination Technical Group, vaccination will continue in the IAA for five consecutive years. The project is being developed to ensure that the potential effect can be monitored with a view to assessing its impact. A total of 1,424 badgers were vaccinated during year-1; 1,352 were vaccinated in year 2; and 1316 badgers were vaccinated in year 3 of the project. Reports on the first and second years of the project are available at <http://wales.gov.uk/topics/environmentcountryside/ahw/disease/bovinetuberculosis/intensive-action-area/badger-vaccination-iaa/?lang=en> The penultimate year (year 4) of badger vaccination in the IAA began in May 2015.

9. In order to analyse the impacts of the enhanced measures underway in the IAA, APHA has been commissioned to produce reports that analyse the differences between bovine TB indicators in herds in the IAA and herds in a comparison area. The latest report (covering the period 2010 – 2013) can be found at the following link: <http://gov.wales/topics/environmentcountryside/ahw/disease/bovinetuberculosis/intensive-action-area/9124696/?lang=en>

10. A Badger Vaccination Grant has been established to provide farmers, landowners, and other organisations with the opportunity to apply for financial support towards badger vaccination. Successful applicants will receive up to 50% of the eligible costs of badger vaccination. Up to £250,000 a year will be available for five years. The Badger Vaccination Grant opened for applications in October 2013. There are currently seven privately delivered five-year projects in Wales benefiting from funding under the Badger Vaccination Grant. A second application window closed in March 2015 and 4 new applications are currently under review.

Northern Ireland (NI)

11. Vaccination of badgers is taking place as part of the TVR Research Project, which commenced in May 2014. This research project will run for 5 years (2014 - 2018). During year 1 of TVR all captured badgers were sampled, vaccinated, identified and released. This was an essential part of the TVR design to obtain badger ecological data in advance of TB test-positive badgers being removed. From 2015, TVR TB test-negative badgers will be vaccinated while TB test-positive badgers will be removed. The TVR Project will accumulate substantial data on badgers during the five years of the research project, which will need to

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be analysed and understood at the end of the project. DARD will seek to extend powers in NI to allow lay vaccination of badgers, under licence, for example on lands owned or managed by environmental organisations. The TVR research project will continue until 2018. The data collected will be analysed and evaluated with a final report of project findings expected in late 2019. The TB Strategic Partnership Group (TBSPG) is currently engaged in a consultation exercise, a component of which is to consider what more is required to address TB infected badgers and deer in NI. The TBSPG's final recommendations are not expected until December 2015.

Cattle vaccination developments

12. Progress continues to be made in preparing for field trials of the cattle TB vaccine and diagnostic test to detect infected amongst vaccinated animals (so-called 'DIVA' test). EU law prohibits the use of TB vaccines in cattle, and Council Directive 64/432/EEC (as amended) would prevent trade in vaccinated cattle because vaccination with BCG sensitises cattle to the skin test causing them to react as if they were infected. However, vaccination is expected to offer an additional, valuable tool for controlling and eradicating TB, in particular in endemic areas.

13. In January 2013, former DG-SANCO Commissioner Tonio Borg wrote to former Defra Secretary of State Owen Paterson to say that scientific information was not yet available on the reliability and feasibility of cattle vaccination accompanied by use of DIVA test(s) that was fundamental for a possible change in the EU policy on the control and eradication of TB. Mr. Borg proposed a tentative time line for bTB vaccination of cattle in UK, showing the series of steps/milestones that would be needed to identify the evidence and deliver this through UK based field trials over the coming years. EFSA provided an opinion to the European Commission in December 2013 on the conduct of possible vaccine and DIVA field trials and that opinion has been used as part of a Defra-funded research study to inform the design of possible field trials.

14. Defra-funded research has provided a framework for the design of field trials to support an application for an Animal Test Certificate. However the research has also posed some fundamental technical challenges around the size and duration of some trials and raised important issues concerning the business case to support field deployment of the vaccine and current DIVA test. Defra will be addressing these issues during 2015 while trials of a new skin test DIVA take place.

Research projects

England and Wales

15. Defra administers a wide-ranging TB research and development programme on behalf of both England and Wales, aimed at improving our understanding of the disease and at developing novel tools and refining existing tools and how we apply them to tackle the disease. It covers many branches of science (including immunology, vaccination, diagnostics, epidemiology, ecology and genetics), as well as social science and economics. Between 1991/92 and 2011/12 Defra funded over one hundred individual research projects, and invested approximately £93 million in TB research and development. In recent years, an increasing proportion of this research budget has been directed towards developing vaccines and associated diagnostic tests. The content and direction of the research programme is described in further detail in the 2013/14 – 2017/18 Bovine Tuberculosis Evidence Plan at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/181866/pb13909-evidenceplan-bovine-tuberculosis.pdf.pdf

Research funded in 2014/15 at:

<https://www.gov.uk/government/publications/bovine-tb-research-projects-funded-by-defra-2014-to-2015>

Further details of ongoing research and reports of completed projects at:

<http://randd.defra.gov.uk>.

Northern Ireland (NI)

16. In NI research needs are established and commissioned through a formal evidence and innovation process to ensure well informed and evidence based policy development. Industry stakeholders are

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involved to help identify and refine TB evidence needs and priorities. A summary of the bTB research projects currently underway or recently completed is listed below.

- TB Biosecurity Study – aimed at determining the differences in the characteristics of herds that recently had a TB breakdown against those that had no recent history of a breakdown in a TB high incidence area. Completed and published online (see Latest developments).
- IFN-gamma Project - to undertake an evaluation of the IFN-gamma test as currently implemented to optimise best use to aid control and eradication of TB in NI. An initial analysis has been completed and the final AFBI report has been received. DARD will consider the conclusions and recommendations in the report.
- Badger-Cattle Proximity Study - to assess the interactions between cattle and badgers in farm buildings and at pasture in a TB high incidence area, better inform our understanding of disease transmission risks and help target biosecurity advice. Completed and published on line (see Latest developments).
- Badger Road Traffic Accident Survey – to provide ongoing monitoring of the prevalence of *M. bovis* in badgers and their geographic distribution.
- Literature Review on the role of slurry in spreading TB – to provide a comprehensive review of the published work or work nearing completion on the role of slurry in spreading TB. Completed and published on line (see Latest developments).
- TVR Research Project - to design specific wildlife intervention research involving the testing of live badgers; vaccinate and release of the test negative badgers; and remove the test positive badgers. This wildlife intervention research will focus on removing diseased badgers and protecting uninfected ones. The aim of this wildlife intervention research will be to test the effectiveness of this approach on the level of TB in badgers and in cattle in NI. Badger sett surveying in two areas of County Down was completed in January 2014 as a prerequisite to the commencement of the research. Year 1 of TVR research field activities commenced in May 2014 in a 100km² area in County Down and were completed in October 2014; Year 2 started in June 2015. The TVR research is designed to run for 5 years. Badger ecology monitoring will take place throughout the five-year TVR research period.

17. Other R&D research commissioned in 2015 is:

- to investigate the role of endemic diseases in relation to susceptibility to TB;
- to consider the value of serological tests for TB;
- Risk factors associated with multiple reactor and chronic herds - to investigate the risk factors for herds with persistent and/or chronic infection in order to further reduce disease in those herds. Datasets are being analysed; and
- Investigating *M. bovis* transmission dynamics using genome epidemiology; Improved diagnostics of the IFN-gamma test

4.4.8 Information and assessment on bio-security measures management and infrastructure in place in the holdings involved.

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1. The competent authorities in the UK collaborate with industry and the veterinary profession to ensure practical advice, based on the best scientific evidence, is provided to cattle keepers on how they can reduce their TB risks through biosecurity. Advice (DVDs and leaflets) freely available to cattle keepers set out what TB is and what it means to have it on farm, and sets out effective measures to reduce the risk of TB transmission (cattle to cattle and wildlife to cattle).
- From January 2010, APHA delivered enhanced veterinary advice for farmers in England experiencing their first bovine TB breakdown, through extended disease investigation visits.

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- In England herds contiguous to breakdowns also receive advice on biosecurity.
- APHA's series of 'TB in your herd' advice and guidance leaflets were updated and republished in summer 2012.
- Defra changed legislation in England in October 2014 to enable the publication of TB breakdowns so that other farmers can take appropriate measures to mitigate risks of disease transmission. Work is also underway to change legislation to this effect in Wales.
- In December 2014, Defra published a TB Biosecurity Action Plan. <https://www.gov.uk/government/publications/cattle-biosecurity-action-plan-for-improving-herd-resilience-to-bovine-tb>

- In January 2015, Defra established a service in Somerset and Gloucestershire to provide farmers in the cull areas with bespoke advice on how to better protect their farms from disease

- In Wales from October 2013, as part of the Cymorth TB initiative, OV's have been providing bespoke advice to farmers with new and existing TB breakdowns to assist them in achieving and maintaining OTF status. This advice covers aspects such as biosecurity and best practice.
- Work is also underway in Wales to strengthen TB legislation and this will include further ways in which biosecurity practices and other behaviours can be linked in with TB compensation. Areas likely to be strengthened and implemented during 2015 as part of this process include:
 - o To further promote best practice and align compensation levels with appropriate behaviours;
 - o Widen and clarify circumstances in which a Veterinary Improvement Notice might be served;
 - o Extend the ability to recover costs in cases of non-compliance.
- In Wales, there are a number of ongoing regional initiatives to encourage good on farm biosecurity practice. For example cattle keepers in the IAA have access to biosecurity assessments on request and the Wales TB Regional Eradication Delivery Boards have initiated biosecurity Intensive Treatment Areas on the Gower Peninsula and in the Wrexham area. The three Boards also take forward a rolling programme of best practice events.
- The Welsh Government is continuing to work with the veterinary profession to deliver focused veterinary advice (through private vets) to owners of TB breakdown herds as part of the Cymorth TB project. Work is also underway to resolve long-term breakdowns in England and Wales.

- Biosecurity is a key priority for the 2015/16 year as set out in the Wales Animal Health and Welfare Framework Implementation Plan. A dedicated campaign is underway, consisting of a survey to indicate farmers' awareness and understanding of biosecurity, promotion of the recently published cattle keepers' handbook, farm health planning and work to ensure that good biosecurity is a core element of wider strategies such as the Rural Development Plan for Wales. Further information can be accessed via the attached links;
<http://gov.wales/topics/environmentcountryside/ahw/biosecurity/?lang=en>
www.wales.gov.uk/ahwframework

- In NI DARD issued all herd keepers with the local publication "Biosecurity Code for NI farmers and guidance for official visitors to farm properties and recreational users of farmland." This book describes the reasons for having a code, legal requirements, notifiable disease and reducing risks of allowing disease on to premises.
- DARD Veterinary Service officials visit and advise individual NI herdkeepers on movements and segregation of cattle in all breakdown premises, particularly in relation to preventing spread of disease to contiguous herds. Specific written biosecurity advice is provided at the start of the breakdown. Further, a "TB in your herd" booklet is given to all NI breakdown herds and is also freely available on the internet. Both the booklet and the DARD internet site were updated during 2013. Movements of

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personnel and equipment that have the potential to carry disease are investigated and appropriate biosecurity advice given. Herds contiguous to breakdowns are notified of risk and also receive biosecurity advice.

- Biosecurity leaflets have been produced by DARD with input from NI industry representatives and are available on the DARD web site. DARD Veterinary Officers deliver these to keepers of all breakdown herds at breakdown visits. They are also circulated to the keepers of all herds identified for risk testing, and are also hand delivered to all farms by DARD staff conducting Brucellosis herd tests. A webinar for Private Veterinary Practitioners to assist them in communicating biosecurity advice to their clients is currently in the latter stages of development by DARD Veterinary Services.

4.4.9 Measures in case of a positive result including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

A description is provided of the measures as regards positive animals and detailed reference to the Union legislation provisions (slaughter, destination of carcasses, use or treatment of animal products, the destruction of all products which could transmit the disease or the treatment of such products to avoid any possible contamination, a procedure for the disinfection of infected holdings, the therapeutic or preventive treatment chosen, a procedure for the restocking with healthy animals of holdings which have been depopulated by slaughter and the creation of a surveillance zone around infected holding). A definition of a suspicion and of a confirmation should be provided, with detailed measures implemented in both situation and how the herd is requalified as free after a positive result.

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General Measures

1. Conditions where Officially Tuberculosis Free status is suspended

In line with Annex A to Council Directive 64/432/EEC (as amended) OTF status will be suspended:

- Where an animal discloses with a positive result to the tuberculin skin test (a reactor);
- Where a test reveals IRs only, in a herd that had OTF status withdrawn within the previous three years.

In NI, OTF status is suspended regardless of the herd history, but the derogation is applied at status reason level.

- Following the discovery of a lesion suggestive of bovine TB in a carcass at a slaughterhouse;
- Where a tuberculin test becomes overdue;
- In suspected clinical cases (although this is very rare and the first action would be to carry out a tuberculin skin test); and
- Where there are no overriding epidemiological reasons to apply OTFW status.

2. Conditions where OTF status is withdrawn

- Disease is confirmed by PME and/or laboratory procedures.
- In Wales and NI, OTFW (OTW in NI) may be applied on epidemiological grounds where disease has not been confirmed. In Wales such criteria include, if a breakdown herd is contiguous to an ongoing OTFW breakdown, has had its OTF status withdrawn in the preceding three years, or a Veterinary Officer identifies another valid reason. Associated tracings and contiguous testing is also performed, like in any other OTFW breakdown. In NI, it is clear in the DARD Veterinary Service staff instructions that OTW breakdown status can be applied to any herd, in addition to those specified by legislation and Veterinary Service Staff instructions, if the VO decides that the level of disease risk requires it. OTW status can be applied in NI solely where a Veterinary Officer (VO) has considered it to be epidemiologically prudent, for example recent movement out of a herd of an animal that is disclosed as a reactor in another herd. This decision is at the discretion of the patch VO and will be based on their knowledge of the breakdown, the area, and any other relevant epidemiological evidence available to them.
- Furthermore in NI it is an obligation to apply OTW status, without the need for any laboratory/PME confirmatory indication where more than five reactors are identified either at a single test or cumulatively during the course of a breakdown. This is based on epidemiological risk assessment and is

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under review. OTW status is also applied where the inter herd test interval reaches a maximum of fifteen months in NI.

- The Welsh Government will be applying OTFW status to all new TB breakdowns in Wales as a default position from 31 December 2015. OTFS status would only be applied following Veterinary Risk Assessment based on epidemiological evidence to suggest it is warranted. In England, Defra is considering tightening controls on OTFS breakdowns in the High Risk Area in line with those already in place in the Edge Area.

3. Additional actions taken following the identification of reactors:

- Reactor cattle are immediately detained and isolated as far as practicable from other bovine animals and expediently removed for slaughter, in England and Wales the APHA target is within ten working days and DARD's target is fifteen working days.
- No movements will take place unless a licence is issued. In NI no licence is required for moves direct to slaughter as APHIS is a real time database controlling access to the abattoir.
- TB testing will be carried out again at a minimum of 60 day intervals (up to a maximum of 90 days). For all non-OTF herds, in England and Wales no on movements are permitted unless there is a satisfactory veterinary risk assessment. This can only be considered after the completion of the first official test and all reactors identified at that test have been removed. In NI inward movements are prohibited for as long as is deemed appropriate subject to veterinary risk assessment in situations other than those specified as mandatory by the Veterinary Service Staff instruction (see Paragraph 15 of Section 4.4.5).
- A DNA eartag will be applied at the time of disclosure (or valuation in NI) and a random or targeted number will be followed up by DNA matching samples taken following the slaughter of the reactor. This is to ensure that the TB reactor animal is the one that is valued and slaughtered.
- Additionally, throughout the UK, and in accordance with section 2.2.5.3.5 in Annex B to Council Directive 64/432/EEC (as amended), a more severe interpretation of the skin test will be adopted in all OTFW TB breakdowns. To further accelerate the detection and elimination of infected animals, IFN-gamma testing is deployed as a supplementary diagnostic test in NI in certain TB breakdown herds meeting defined criteria.
- In accordance with Annex A to Council Directive 64/432/EEC (as amended), herds where OTF status has been withdrawn for disease reasons a legal Notice is served on the owner requiring cleansing and disinfection with an approved disinfectant by a specified date following the removal of any test reactors or 'affected' animals. In addition in NI, the same procedure applies to herds where OTF status has been suspended for disease reasons.
- Herd keepers and hauliers contracted to transport the reactors to slaughter will be required to comply with legislation. After unloading the animals, vehicles must be fully cleansed and disinfected as soon as is reasonably practicable within twenty-four hours. In NI the DARD sub-contracted haulier must do so before leaving the designated abattoir.
- In NI transport of reactors is by a DARD sub-contracted haulier to a single DARD contracted abattoir under strict biosecurity conditions. In England and Wales, reactors are collected and slaughtered at a limited number of slaughterhouses under contracts.
- Specific verbal and written advice on epidemiology, public health and biosecurity is provided by the OV or VO to the herd keeper. In NI, much of this is delivered by the VO during the breakdown investigation visit during which likely causal factors are identified, particular groups of cattle at higher risk of infection may be identified, and specific biosecurity advice is given to avoid recurrence.
- Case conferences may be held, if the OV or VO considers it necessary.
- In Wales, the Cymorth TB project which has been underway since October 2013 offers those farmers whose herds are under restriction, additional bespoke advice through their own OV with the aim of restoring OTF Status at the earliest opportunity.
- In NI, all herd keepers adjoining OTW breakdowns are identified, informed of the risk, and their herds may undergo a short interval testing cycle following veterinary risk assessment carried out in accordance

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with Veterinary Staff instructions,. They are tested at 4 monthly intervals until there is no further risk of lateral spread. If the test is not completed on time, OTS is applied. The DARD Veterinary Service Staff instructions state that a Veterinary Officer may also decide to set risk tests for herds contiguous to an OTS breakdown or contiguous to a backward-traced herd on the basis of disease risk. They also make it clear that in any area where there is a high incidence of TB or a sudden increase in TB levels, blanket herd testing may be introduced, and set out conditions for implementation of same.

- For OTFW breakdowns in the Low Risk Area and in parts of the Edge Area of England, 3km radial testing will take place to establish that there has not been localised spread of infection. Herds will be subject to an immediate check test of all animals over 42 days of age. If this initial check test is negative, the herd will be marked forward for an additional test 6 months later. Following a clear test any such herds in the Edge Area will revert to annual testing. In the Low Risk Area an additional 12-month check test will be required, as a minimum, before reverting to the default 4-yearly testing frequency for the low incidence area. Pre-movement testing is required in such herds until the radial testing regime has been completed in the herd.

4. Forward tracing of animals from OTFW breakdowns is carried out under parameters determined by an OV or VO. If it is impossible to test the traced animal, due to either its death or having been previously exported, a herd test may be set subject to veterinary risk assessment carried out in accordance with staff instructions. Factors to be considered include post-mortem and laboratory results, the degree of contact between the traced animal and the infected animal in the originating herd, the severity of the originating breakdown, how long the traced animal was in the destination herd and whether any of the cattle still present in the herd had contact with the traced animal. Reasons for the decision must be recorded. Where a traced animal has been exported live prior to being identified as a traced animal, the Competent Authority of the appropriate Member State is informed, subject in some cases to pre-conditions specified by the recipient Competent Authority.

5. In NI, herds through which TB reactors move are tested according to VO risk assessment carried out in accordance with the Veterinary Service staff instructions. These herds lose OTF status until any required additional testing is completed.

Procedures for restoration of OTF status

6. OTFS (OTS in NI) status is removed from a herd where:

- There is completion of an overdue herd test
- If evidence of *M. bovis* infection cannot be demonstrated by PME and culture in GB, and PME, histology or culture in NI, in any of the slaughtered reactors, OTF herd status will remain suspended and may be restored after a single skin test of all the animals over 42 days old in GB (NI - entire herd) in the herd with negative results in accordance with Annex A (3A) to Council Directive 64/432/EEC (as amended)
- Cleansing and disinfection procedures are completed as required.
- In NI, all suspended herds (due to disease) are subject to cleansing and disinfection inspection. No such herd will regain OTF status unless cleansing and disinfection is inspected and is approved.
- In England, any breakdown herds that are contiguous to an ongoing OTFW breakdown, or have had their OTF status withdrawn in the preceding three years, will require two (not one) consecutive skin herd tests with negative results before regaining OTF status. Additionally, in the Edge Area, all OTFS herds will require two (not one) consecutive skin herd tests with negative results before regaining OTF status.

7. OTFW (OTW in NI) status is removed from a herd where:

- Two consecutive clear herd skin tests have been completed in accordance with Annex A (3B) to Council Directive 64/432/EEC (as amended) and
- Cleansing and disinfection procedures are completed as required. No such herd will regain OTF status unless confirmation of cleansing and disinfection has been received.

8. After regaining OTF status, herds must undergo further skin check tests before going back to the normal area herd testing frequency. In former OTFW herds and the majority of OTFS herds in England and Wales, the first such test will take place 4-6 months after restoration of OTF status. In NI, all TB

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breakdown herds are required to complete a check test 4-6 months after restoration of OTF status. If that test is negative, a second check test takes place 12 months thereafter, unless a risk assessment carried out in accordance with Veterinary Service staff instructions demands a reduced interval.

9. In England, former OTFS herds located in 4 yearly testing zones will only require one follow up test with negative results between 6 and 12 months after OTF status restoration. During this period, any cattle moved out of the herd will be eligible for PrMT.

Stamping out the disease in heavily infected herds (depopulation)

10. A herd may be fully or partially depopulated if considered necessary. Depopulation will involve either the compulsory slaughter of the whole herd, or all of the cattle within specific epidemiological groups where the prevalence of infection does not justify continued skin testing. Cleansing and disinfection of depopulated holdings will be carried out to prevent reinfection and is audited. Restocking will only be allowed once the owner has taken positive measures to mitigate the risk of reinfection or a period of time has elapsed to reduce risks from residual infection on the holding.

11. Defra and the Welsh Government consider that whole herd depopulations are of most benefit when the disease within an area has reached a relatively low level; it is a useful tool to establish area TB freedom. Defra and the Welsh Government is committed to considering this practice when there is epidemiological evidence to suggest that herd depopulation (either partial or total) is warranted and justified on a case by case basis.

12. In NI, the DARD Veterinary Service staff instructions detail the approach regarding removal of negative in contact animals and herd depopulation. There is a well-defined and controlled procedure for full depopulation of herds as a means of risk reduction or control by eliminating the infection at that time, and for restocking of the herd once defined conditions are satisfied.

4.4.10 Compensation scheme for owners of slaughtered and killed animals

(max. 32000 chars):

1. Compensation is paid for cattle compulsorily removed and slaughtered as part of the TB eradication programme.

England

- Compensation paid at the average market value of similar (i.e. same category) animals.
- The Cattle Compensation (England) Order 2012 sets out the detailed rules for the table valuation based compensation system for bovine animals.
- The Individual Ascertainment of Value (England) Order 2012 provides for individual valuation of affected bovine animals where there is inadequate supporting sales data (used only in a small minority of cases - less than 1%).
- A percentage reduction in compensation may be applied if a cattle keeper fails to test his herd by prescribed deadlines.

Wales

- Compensation is currently calculated on the basis of market value in accordance with the provisions of the Tuberculosis (Wales) Order 2010.
- The Welsh Government monitors TB valuations through the use of Monitor Valuers who will scrutinise all valuations on a monthly basis, seeking justification and requesting comparable market data in all relevant cases.
- Automatic justification is required for payments that exceed £3,000 (recently reduced from £4,000) for pedigree animals or £1,800 for commercial animals.
- A percentage reduction in compensation may be applied if a cattle keeper does not adhere to TB

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testing requirements, fails to take appropriate action after the serving of a Veterinary Improvement Notice, or breaches the Tuberculosis (Wales) Order 2010.

- Following consultation and review in 2014, a number of enhancements were announced in October 2014. These enhancements included:

- Lowering the threshold, to which valuers have to justify their valuations of pedigree cattle, to £3,000 (from £4,000) (administrative);

- Procurement of valuers under a framework contract and employ them under set terms and conditions (administrative);

- The introduction of a cap of £15,000 per animal on compensation payments (legislative).

- In addition, the Welsh Government is committed to strengthen the current policy of penalising cattle keepers who undertake risky practices, as well as better incentivising farmers to keep disease out of their herds. These enhancements will need a legislative change and a consultation on amendments to the Tuberculosis (Wales) Order 2010 will begin in August 2015 with a view to changes taking effect in early 2016.

The consultation sets out our proposals to change the way we deal with compensation in circumstances including where risky practices can contribute to the spread of TB. This includes reducing compensation in an extensive number of circumstances for example if:

- o there has been a failure to comply with the requirements of a Veterinary Improvement Notice

- o there has been a failure to test animals as required under the Order

- o the conditions set out in the approval of an Approved Finishing Unit have not been followed

- o an animal has been slaughtered because of TB after it had been brought in, under licence, to a restricted herd

- o an animal under movement restrictions has been moved without a licence

- o there has been an interference with the TB test

- The consultation also sets out other changes to the TB (Wales) Order 2010 we propose to clarify some of the current provisions in order to avoid confusion and to ensure that they are applied properly. By doing this we believe that we will be in a better position to penalise cattle keepers who are undertaking risky practices which may jeopardise the success of our TB Eradication Programme. We also intend to introduce a cap of £15,000 per animal on compensation payments.

- TB valuations are closely monitored by the Welsh Government and detailed reports on key trends are produced on a regular basis by its TB Statistician. The Monitor Valuers meet with the Welsh Government on a monthly basis to scrutinise all valuations, seeking justification and requesting comparable market data in all relevant cases. Valuers that fail to provide appropriate justification are removed from the list of "warranted valuers". The 'justification' process is continually reviewed with changes introduced where appropriate.

Northern Ireland (NI)

- Reactor animals and any relevant in contact animals are valued by DARD Valuation Unit on farm prior to slaughter. DNA tags are applied to reactor animals at test read off or at valuation.

- Compensation is made on the basis of market value directly to the herd keeper for all classes of animals removed.

- Where a herd keeper disputes a valuation, they may seek an independent valuation by an independent valuer from a DARD approved list of valuers. This independent valuation is not final and binding, and so the herd keeper or DARD may appeal a valuation to an independent valuation appeal panel.

- The work of the DARD Valuation Officers is subject to close monitoring and justification is required for higher value animals.

- The valuation process has recently been strengthened.

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4.4.11 Control on the implementation of the programme and reporting including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

(max. 32000 chars) :

1. There will be regular reporting and liaison on the delivery of different aspects of the TB programmes between the delivery bodies and the competent authorities in UK including to the UK TB Liaison Group.
2. The integrated APHA Sam IT system for England and Wales manages the TB surveillance and control functions including immediate updates on customer records visible by all in APHA, direct transmission of TB test data through interfaces with OV practices, Food Standards Agency (FSA) meat hygiene inspectors and the TB culture laboratory, all of which have improved the quality and assurance of disease test data.
3. In NI, APHIS is used for all aspects of TB disease control. APHIS capability is used to administer between-herd movement of cattle, captured using a movement notification system and permissible movement matrix, facilitated by input at markets, abattoirs and directly via the internet by herd keepers. It facilitates management of herd-level and animal-level tests, with results recorded at animal level. Entry of test results is virtually exclusively by direct link with the testing veterinarian via a web based system onto APHIS. Abattoir and laboratory results are similarly reported immediately on APHIS.

Management and quality controls

Quality Assurance of Official Veterinarians

Wales

4. In Wales, APHA, on behalf of Welsh Government is committed to carrying out Quality Assurance audits (undertaken by APHA vets) on all OVs in Wales at least once in a two-year period. These audits are unannounced and can take place on day 1 or 2 (or both) of the tuberculin test. To assist with the field audit of OVs, categories of non-compliance with procedures and instructions to deal with minor, intermediate, critical or serious misconduct, and invalid test results have been developed. Results of the audit are shared with Welsh Government as are the actions undertaken following and audit. It is envisaged that APHA will continue with the audit schedule as set out above even though OVs will also be audited by their Delivery Partners in line with the new Veterinary Delivery Partnership contract.

England

5. In 2013, APHA launched a new field audit system. In June 2014, APHA awarded a contract for the training and revalidation of Official Veterinarians operating in England, Scotland and Wales to Improve International. In May 2015, TB testing in England came under a proper contractual framework: all new TB testing will be undertaken by five regional suppliers (Delivery Partners) who are responsible for allocating local vets and ensuring testing is carried out to a high standard.

Northern Ireland

6. The Bovine TB Control Scheme in NI is run as a programme by the Veterinary Service of DARD. This is led by a Senior Principal Veterinary Officer (SPVO) supported by a dedicated team at HQ. This is supplemented with input from an in-house Veterinary Epidemiology Unit and other sources as required. Implementation and delivery of Programme disease control requirements is based at DVO level, through centralised instructions and supported by IT. Private sector contractors provide the bulk of the live animal surveillance testing under supervision. The disease outcomes in NI are monitored both locally and province wide. Results are analysed by the Veterinary Epidemiology Unit (VEU), made available monthly and reported annually in the Programme report. VEU are currently developing further disease indicators for use at regional and Divisional level. Delivery is monitored and assessed both centrally and locally via suites of Key Performance indicators (monthly) and management reports which are run as necessary or at set intervals varying from daily to fortnightly. Review of the parameters and the means of assessment is an ongoing process.

7. Governance of the implementation of the Programme is structured. The HQ team under the

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Programme SPVO provide technical policy advice and translates policy decisions into instructions and training packages as required. The responsibility of seeking adequate resource lies at HQ. This team creates and monitors Programme Performance Indices to establish the level of delivery in each critical area.

8. Local managers oversee the delivery of the programme. The field TB Implementation Team monitor the delivery of the Programme at DVO level and individual breakdown level through audit of decision making and field processes.

9. A further central role is to conduct audit of the private sector delivery partners and in house testing personnel. This assesses delivery against required delivery targets. Specialist teams of audit trained Veterinary Officers conduct field visits, including audit of the test procedures in the field. Failure to comply fully with either contractual requirements (or staff instructions) will attract sanctions as described in a formal protocol.

10. There are four aspects to quality assurance of veterinarians approved for TB testing:

- Annual check on Royal College of Veterinary Surgeons membership status of Private Veterinary Practitioners (PVPs) delivering tuberculin testing on behalf of DARD with non-members having their approval suspended.
- Central provision of statistics every six months to each vet practice for each PVP approved for testing within that practice to allow comparison within the practice of breakdown rates, and disclosure rates of both reactors and ICs in 3 main categories of herd test (routine, risk and restricted). Statistics for the local DVO area are also provided to allow further comparison with disclosure rates in the area as a whole for both reactors and ICs in the 3 main categories of herd test. Practice statistics are also routinely available through the local DVO and the APHIS PVP Extranet. Similar statistics are provided to DARD employed Temporary Veterinary Officers and Veterinary Officers Testing.
- Revised warranting of PVPs seeking approval as referred to in Sections 4.2 and 4.4.6.
- Unannounced field based technical audit of both PVPs and DARD employed Testing Officers by specifically trained teams, with varying levels of sanction depending on the level of non-compliance identified.

Statistics

11. Defra will produce monthly updates of TB statistics for GB which will be published online at <https://www.gov.uk/government/collections/bovine-tb> For NI, detailed disease statistics are published monthly at <http://www.dardni.gov.uk/index/dard-statistics/animal-disease-statistics.htm>

12. Regular reports will be provided to the European Commission on progress of the disease and on the Programme including in accordance with Article 8 of Council Directive 64/432/EEC (as amended).

5. Benefits of the programme

A description is provided of the benefits of the programme on the economical and animal and public health points of view.

Describe

- progress expected compared to the situation of the disease in the previous years, in line with the objectives and expected results
- cost efficiency of the programme including management costs

(max. 32000 chars) :

1. The main generic benefits of the bovine TB Eradication Programmes in the UK are reducing the

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financial burden to farmers and other tax payers by improving animal health, and promoting trade and a financially sustainable farming sector, protecting human health, and safeguarding animal welfare.

Financial Benefits by improving animal health and maintaining a sustainable farming sector

2. In 2013, 464 thousand people worked on UK farms with 3.6 million people employed in the agri-food sector. The value of UK production was £4.3 billion for dairy products and £2.9 billion for beef. The value of UK exports was £847 million for dairy products (cheese, milk, cream butter) and £373 million for beef. <https://www.gov.uk/government/statistics/agriculture-in-the-united-kingdom-2013>

3. Defra has estimated that each confirmed new breakdown costs on average around £20,000 to the taxpayer, and around £14,000 to farmers. Based on current expenditure, the forecast cost to the taxpayer alone without additional intervention will exceed £1 billion over the next decade; this level of expenditure is unsustainable.

4. Eradicating TB offers the potential for considerable financial benefits for both the cattle sector and the taxpayer in terms of:

- Reduction of the production losses incurred by the cattle sector as a result of removal of diseased animals or disruption following the imposition of movement restrictions.
 - Reduced cost burden on the taxpayer by minimising the levels of compensation paid for animals compulsorily slaughtered and reducing future testing costs and APHA resources expended on TB issues.
5. Deriving from these financial benefits will be the maintenance of viable and sustainable beef and dairy sectors through improved consumer confidence in the quality and safety of produce.

6. As part of the continued sustainability of the sector, the UK has developed stronger intra-EU trade and export markets following the lifting of the BSE-related export ban. An improved TB disease situation would enable greater opportunities to strengthen these markets.

Human Health

7. There is a low risk to human health posed by *M. bovis* and this can be further reduced by the programme. Control of TB was one of the great public health success stories of the twentieth century. In the late 19th century TB caused 1 in 5 of deaths in the UK and even as late as the pre- and post-World War II period there were 50,000 TB notifications in England and Wales. Before World War II, 2,000 children died in the UK every year due to bTB. The implementation of BCG vaccines, pasteurisation of milk, and the reduction of the incidence of the disease in the cattle population contributed to the effective elimination of the disease as a major health issue in the developed countries.

Animal Welfare

8. There will be improved animal welfare through the prevention of infection and the wider societal benefits gained from the cessation of interventions relating to wildlife.

9. If the disease were to escalate clinically there could be significant animal welfare problems. It is not likely that these would be acceptable to a population increasingly seeking high welfare standards. This analysis of programme benefits suggests that although precise estimates cannot be made there are a number of significant benefits relative to a "no control situation".

Country Specific Benefits

England

10. Bovine TB is the most pressing animal health problem in England. It is a social and economic problem, costing the taxpayer over £90m in 2014/15 with annual costs to farmers estimated to run to tens of millions of pounds.

11. Defra's objective is to achieve Officially Bovine Tuberculosis Free (OTF) status for England by 2038. Defra has an interim objective of achieving OTF status for large parts of the north and east of England as soon as possible but most likely by 2025. The Programme takes into consideration the heterogeneous geographic distribution of bovine TB in England. The disease is endemic in the South West and West Midlands of the country. The rest of the country, apart from a small, endemic enclave on the South coast (East Sussex) has a low incidence level of disease and virtually all confirmed cases of bovine TB in these areas can be traced back to livestock movements from the high incidence area. For the past 20 years, the

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edge of the endemic area has steadily, albeit slowly, advanced into the low incidence, non-endemic area.
Wales

12. The Welsh Government recognises that TB eradication is a long term objective and the measures contained within this Programme are all designed to get ahead of the disease, stop it spreading, clear up infection quickly and keep herds and wider areas (such as north Wales) free of disease. It is anticipated that these measures will lead to a gradual reduction in TB incidence and prevalence and will eventually lead to the eradication of bovine TB in Wales. Achieving sustained reductions in disease in the first instance is an important milestone towards TB eradication. It is anticipated that the measures contained within this Programme will lead to these sustained reductions in incidence and prevalence.

13. The key indicators for bovine TB, disease incidence and prevalence, are unpredictable and influenced in varying degrees by many factors. The unpredictable nature of the disease makes forecasting even short term targets unreliable.

14. There were marked reductions in new bovine TB incidents and animals slaughtered in Wales in 2013. This trend continued into the early part of 2014, although the decrease has subsequently plateaued. It may be reasonable to suggest that improvements made to our programme have influenced the fall in TB incidence in recent years and it is anticipated that recent measures will contribute to the continuing decline in TB.

15. The measures contained within this TB eradication plan are designed to continue this downward trend and we are steadily ramping up our controls in order to achieve reductions in incidence and prevalence.

16. There is no one measure that will lead to TB eradication in Wales; a comprehensive approach is required in order to tackle all sources of infection. Since 2010 all cattle herds in Wales have been subject to annual TB surveillance testing, with cattle herds in one endemic area, the Intensive Action Area (IAA) being tested every six months. This comprehensive testing strategy will continue for the foreseeable future and has yielded an important longitudinal dataset, which will be interrogated and used to make evidence based decisions to reverse the TB epidemic.

17. Data collected so far demonstrates that bovine TB is not distributed uniformly across Wales. The north west of Wales has a lower disease incidence than the South West and areas to the East bordering the annual testing areas in England. Exploring the distinctions and different factors affecting the incidence levels between these areas and other areas within the Epidemiology project is key feature of future Welsh Government policy.

18. Some key measures which we believe will play an important part in the process in the run up to disease eradication include:

- Annual TB testing of all cattle herds in Wales. This is a particularly important aspect of the TB Eradication Programme and we envisage will be critical in arresting the spread of infection and in the medium and long term to delivering the reductions mentioned above.
- Compulsory Pre-Movement TB testing and a tightening up of the exemptions. It is important that we continue to find infection before it has had a chance to spread.
- Badger vaccination in the Intensive Action Area and wider expansion of badger vaccination in other areas of Wales. The benefits of badger vaccination are expected to be seen within the lifetime of this Programme and the impact of any wildlife interventions will continue to be closely monitored.

19. Continuous improvements are being made to remove disease quickly and efficiently from farms and to support farmers in achieving OTF status. Key initiatives to support this include:

- Work to resolve long term and persistent TB breakdowns.
- Cymorth TB, designed to provide guidance to farmers to clear up infection quickly in their herds and support them towards achieving and maintaining herd Officially TB Free Status.
- The TB Epidemiologist and the work within the study areas have identified trends in TB epidemiology and are already informing policy development to suit the specific conditions in the areas.
- Changing behaviours by promoting good practice and dis-incentivising poor practice through

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compensation is another key aspect of the Programme and will be further strengthened in 2015. This is expected to yield positive outcomes in terms of ensuring timely TB testing and implementing appropriate biosecurity practices.

20. The enhanced control measures introduced will take time to reverse the epidemic. They have already identified more infection and in the short term are likely to continue to do so within parts of the country. Cattle controls will continue to be central to our eradication programme. However, we recognise that within the areas of higher TB incidence there is a need to mitigate the impact that any reservoir of infection in wildlife has on the disease in cattle.

Northern Ireland (NI)

21. The main benefits of the TB programme are indicated below. The overall benefit to the NI farming and processing sectors is that the TB programme has been successful in reducing TB in cattle. In addition to the benefit of reduced disease levels, the programme supports trade in live cattle and products. The export trade in cattle, beef, milk and by-products, worth £1,686.8m for 2012, is dependent on the effective implementation of the programme.

This figure is made up as follows:

- Live cattle exports - £30.7m (including to GB)
- Animal by-products exports - £ 34.9m (including to GB) cannot separate cattle data from other animals
- Beef and sheep meat exports - £ 936.4m (including to GB) cannot separate data
- Milk and milk products exports - £ 684.8m (including to GB)

The export trade in live cattle was worth £41.1m in 2013 and £32.1m in 2014

22. The vast majority of herds in NI are able to participate fully in export trade because of the programme. In the absence of an effective programme, access to export markets would not be possible. Maintenance of a programme continues to be essential to provide the guarantees necessary to enable NI cattle and their products to access EU and third country markets.

23. Trade in live animals is governed by Council Directive 64/432/EEC (as amended). Bovine animals traded to another MS must originate from an OTF herd and have been submitted to a pre-movement test for TB within the 30 days prior to movement in the case of animals being traded for breeding and production at 42 days of age and over.

24. Trade in milk is governed by Council Directive 2004/41/EC and by Regulation (EC) No. 2004/853 which establish that milk originating from herds that do not have OTF status must be heat-treated and that milk from animals showing a positive reaction must not be used for human consumption.

25. Trade in animal products for human consumption is governed by Directive 2004/41/EC and Regulation (EC) Nos 2004/853 and 2004/854. Meat from animals with generalized TB must not be declared fit for human consumption. In cases where lesions are confined to the lymph nodes or only one organ or only one part of the carcass, only the affected part need be declared unfit for human consumption. Maintaining access to third country markets depends on NI continuing to comply with the relevant requirements of the OIE and such conditions as may be imposed bilaterally by trading partners.

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7. Targets

The blocks 7.1.1, 7.1.2.1, 7.1.2.2, 7.2, 7.3.1 and 7.3.2 are repeated multiple times in case of first year submission of multiple program.

7.1 Targets related to testing (one table for each year of implementation)

7.1.1 Targets on diagnostic tests for year: **2016**

Region	Type of the test	Target population	Type of sample	Objective	Number of planned tests
England	Tuberculin skin test	Bovines	Skin test	surveillance	6 925 464 X
Wales	Tuberculin skin test	Bovines	Skin test	surveillance	1 900 762 X
Northern Ireland	Tuberculin skin test	Bovines	Skin test	surveillance	2 466 152 X
England	Gamma interferon	Bovines	Heparinised blood	surveillance	67 972 X
Wales	Gamma interferon	Bovines	Heparinised blood	surveillance	20 602 X
Northern Ireland	Gamma interferon	Bovines	Heparinised blood	surveillance	17 000 X
England	Bacteriological	Bovines	tissue	surveillance	9 227 X

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Wales	Bacteriological	Bovines	tissue	surveillance	2 254	X
Northern Ireland	Bacteriological	Bovines	tissue	surveillance	2 859	X
Northern Ireland	Histopathology	Bovines	tissue	surveillance	3 115	X
Total					11 415 407	
Add a new row						

7.1.1 Targets on diagnostic tests for year: **2017**

Region	Type of the test	Target population	Type of sample	Objective	Number of planned tests	
England	Tuberculin skin test	Bovines	Skin test	surveillance	6 925 464	X
Wales	Tuberculin skin test	Bovines	Skin test	surveillance	1 900 762	X
Northern Ireland	Tuberculin skin test	Bovines	Skin test	surveillance	2 463 686	X
England	Gamma Interferon	Bovines	Heparinised blood	surveillance	67 972	X
Wales	Gamma Interferon	Bovines	Heparinised blood	surveillance	20 602	X
Northern Ireland	Gamma Interferon	Bovines	Heparinised blood	surveillance	17 000	X
England	Bacteriological	Bovines	tissue	surveillance	9 227	X
Wales	Bacteriological	Bovines	tissue	surveillance	2 254	X
Northern Ireland	Bacteriological	Bovines	tissue	surveillance	2 856	X

Standard requirements for the submission of programme for eradication, control and monitoring

Northern Ireland	Histopathology	Bovines	tissue	surveillance	3 112	X
Total					11 412 935	
Add a new row						

7.1.1 Targets on diagnostic tests for year: **2018**

Region	Type of the test	Target population	Type of sample	Objective	Number of planned tests	
England	Tuberculin skin test	Bovines	skin test	surveillance	6 925 464	X
Wales	Tuberculin skin test	Bovines	Skin test	surveillance	1 900 762	X
Northern Ireland	Tuberculin skin test	Bovines	Skin test	surveillance	2 461 222	X
England	Gamma interferon	Bovines	Heparinised blood	surveillance	67 972	X
Wales	Gamma Interferon	Bovines	Heparinised blood	surveillance	20 602	X
Northern Ireland	Gamma Interferon	Bovines	Heparinised blood	surveillance	17 000	X
England	Bacteriological	Bovines	tissue	surveillance	9 227	X
Wales	Bacteriological	Bovines	tissue	surveillance	2 254	X
Northern Ireland	Bacteriologica	Bovines	tissue	surveillance	2 853	X
Northern Ireland	Histopathology	Bovines	tissue	surveillance	3 108	X
Total					11 410 464	

Standard requirements for the submission of programme for eradication, control and monitoring

		Add a new row
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7.1.1 Targets on diagnostic tests for year: **2019**

Region	Type of the test	Target population	Type of sample	Objective	Number of planned tests	
England	Tuberculin skin test	Bovines	Skin test	surveillance	6 925 464	X
Wales	Tuberculin skin test	Bovines	Skin test	surveillance	1 900 762	X
Northern Ireland	Tuberculin skin test	Bovines	Skin test	surveillance	2 458 761	X
England	Gamma Interferon	Bovines	Heparinised blood	surveillance	67 972	X
Wales	Gamma Interferon	Bovines	Heparinised blood	surveillance	20 602	X
Northern Ireland	Gamma Interferon	Bovines	Heparinised blood	surveillance	17 000	X
England	Bacteriological	Bovines	Tissue	surveillance	9 227	X
Wales	Bacteriological	Bovines	tissue	surveillance	2 254	X
Northern Ireland	Bacteriological	Bovines	tissue	surveillance	2 851	X
Northern Ireland	Histopathology	Bovines	tissue	surveillance	3 105	X
Total					11 407 998	
				Add a new row		

Standard requirements for the submission of programme for eradication, control and monitoring

7.1.1 Targets on diagnostic tests for year:

2020

Region	Type of the test	Target population	Type of sample	Objective	Number of planned tests	
England	Tuberculin skin test	Bovines	skin test	surveillance	6 925 464	X
Wales	Tuberculin skin test	Bovines	skin test	surveillance	1 900 762	X
Northern Ireland	Tuberculin skin test	Bovines	skin test	surveillance	2 456 302	X
England	Gamma Interferon	Bovines	Heparinised blood	surveillance	67 972	X
Wales	Gamma Interferon	Bovines	Heparinised blood	surveillance	20 602	X
Northern Ireland	Gamma Interferon	Bovines	Heparinised blood	surveillance	17 000	X
England	Bacteriological	Bovines	tissue	surveillance	9 227	X
Wales	Bacteriological	Bovines	tissue	surveillance	2 254	X
Northern Ireland	Bacteriological	Bovines	tissue	surveillance	2 848	X
Northern Ireland	Histopathology	Bovines	tissue	surveillance	3 102	X
Total					11 405 533	
Add a new row						

Standard requirements for the submission of programme for eradication, control and monitoring

7.1.2 Targets on testing herds and animals

7.1.2.1 Targets on testing herds

7.1.2.1 Targets on the testing of herds for year: **2016**

Region	Animal species	Total number of herds	Total number of herds under the programme	Number of herds expected to be checked	Number of expected positive herds	Number of expected new positive herds	Number of herds expected to be depopulated	% positive herds expected to be depopulated	Target indicators			
									Expected % herd coverage	% positive herds Expected period herd prevalence	% new positive herds Expected herd incidence	
England	Bovines	51 692	51 692	35 105	4 075	3 729	0	0	67,91	11,61	10,62	X
Wales	Bovines	12 017	12 017	11 186	939	837	0	0	93,08	8,39	7,48	X
Northern Ireland	Bovines	23 579	23 579	22 688	1 445	1 141	11	0,76	96,22	6,37	5,03	X
Total		87 288	87 288	68 979	6 459	5 707	11	0	79,02	9,36	8,27	
Add a new row												

7.1.2.1 Targets on the testing of herds for year: **2017**

Standard requirements for the submission of programme for eradication, control and monitoring

Region	Animal species	Total number of herds	Total number of herds under the programme	Number of herds expected to be checked	Number of expected positive herds	Number of expected new positive herds	Number of herds expected to be depopulated	% positive herds expected to be depopulated	Expected % herd coverage	Target indicators		
										% positive herds Expected period herd prevalence	% new positive herds Expected herd incidence	
England	Bovines	51 692	51 692	35 105	3 956	3 691	0	0	67,91	11,27	10,51	X
Wales	Bovines	12 017	12 017	11 186	912	828	0	0	93,08	8,15	7,4	X
Northern Ireland	Bovines	23 343	23 343	22 461	1 402	1 107	11	0,78	96,22	6,24	4,93	X
Total		87 052	87 052	68 752	6 270	5 626	11	0	78,98	9,12	8,18	
Add a new row												

7.1.2.1 Targets on the testing of herds for year : **2018**

Region	Animal species	Total number of herds	Total number of herds under the programme	Number of herds expected to be checked	Number of expected positive herds	Number of expected new positive herds	Number of herds expected to be depopulated	% positive herds expected to be depopulated	Expected % herd coverage	Target indicators		
										% positive herds Expected period herd prevalence	% new positive herds Expected herd incidence	
England	Bovines	51 692	51 692	35 105	3 840	3 654	0	0	67,91	10,94	10,41	X
Wales	Bovines	12 017	12 017	11 186	885	820	0	0	93,08	7,91	7,33	X
Northern Ireland	Bovines	23 110	23 110	22 237	1 360	1 074	11	0,81	96,22	6,12	4,83	X

Standard requirements for the submission of programme for eradication, control and monitoring

Total	86 819	86 819	68 528	6 085	5 548	11	0	78,93	8,88	8,1
								Add a new row		

7.1.2.1 Targets on the testing of herds for year: **2019**

Region	Animal species	Total number of herds	Total number of herds under the programme	Number of herds expected to be checked	Number of expected positive herds	Number of expected new positive herds	Number of herds expected to be depopulated	% positive herds expected to be depopulated	Target indicators			
									Expected % herd coverage	% positive herds Expected period herd prevalence	% new positive herds Expected herd incidence	
England	Bovines	51 692	51 692	35 105	3 727	3 617	0	0	67,91	10,62	10,3	X
Wales	Bovines	12 017	12 017	11 186	859	812	0	0	93,08	7,68	7,26	X
Northern Ireland	Bovines	22 879	22 879	22 014	1 319	1 041	11	0,83	96,22	5,99	4,73	X
Total		86 588	86 588	68 305	5 905	5 470	11	0	78,89	8,65	8,01	
									Add a new row			

7.1.2.1 Targets on the testing of herds for year: **2020**

									Target indicators			

Standard requirements for the submission of programme for eradication, control and monitoring

Region	Animal species	Total number of herds	Total number of herds under the programme	Number of herds expected to be checked	Number of expected positive herds	Number of expected positive herds	Number of herds expected to be depopulated	Number of herds expected to be depopulated	% positive herds expected to be depopulated	Expected % herd coverage	% positive herds Expected period herd prevalence	% new positive herds Expected herd incidence
England	Bovines	51 692	51 692	35 105	3 618	3 580	0	0	67,91	10,31	10,2	X
Wales	Bovines	12 017	12 017	11 186	834	803	0	0	93,08	7,46	7,18	X
Northern Ireland	Bovines	22 650	22 650	21 794	1 278	1 009	11	11	0,86	96,22	5,86	X
Total		86 359	86 359	68 085	5 730	5 392	11	11	78,84	8,42	7,92	
Add a new row												

7.1.2.2 Targets on testing animals

7.1.2.2 Targets on the testing of animals for year : **2016**

Region	Species	Total number of animals	Number of animals under the programme	Number of animals expected to be tested	Number of animals to be tested individually	Number of expected positive animals	Slaughtering		Target indicators	
							Number of animals with positive result expected to be slaughtered or culled	Total number of animals expected to be slaughtered	Expected % coverage at animal level	% positive animals (Expected animal prevalence)
England	Bovine	5 294 349	5 294 349	4 027 907	4 027 907	24 846	25 575	76,08	0,62	X
Wales	Bovine	1 111 194	1 111 194	1 184 789	1 184 789	5 666	6 177	106,62	0,48	X

Standard requirements for the submission of programme for eradication, control and monitoring

Northern Ireland	Bovine	1 600 000	1 600 000	1 580 000	1 580 000	7 110	7 110	8 882	98,75	0,45	X
Total		8 005 543	8 005 543	6 792 696	6 792 696	37 622	37 622	40 634	84,85	0,55	
Add a new row											

7.1.2.2 Targets on the testing of animals for year : **2017**

Region	Species	Total number of animals	Number of animals under the programme	Number of animals expected to be tested	Number of animals to be tested individually	Number of expected positive animals	Slaughtering		Target indicators		
							Number of animals with positive result expected to be slaughtered or culled	Total number of animals expected to be slaughtered	Expected % coverage at animal level	% positive animals (Expected animal prevalence)	
England	Bovine	5 294 349	5 294 349	4 027 907	4 027 907	24 449	24 449	25 167	76,08	0,61	X
Wales	Bovine	1 111 194	1 111 194	1 184 789	1 184 789	5 576	5 576	6 078	106,62	0,47	X
Northern Ireland	Bovine	1 600 000	1 600 000	1 580 000	1 580 000	6 952	6 952	8 724	98,75	0,44	X
Total		8 005 543	8 005 543	6 792 696	6 792 696	36 977	36 977	39 969	84,85	0,54	
Add a new row											

7.1.2.2 Targets on the testing of animals for year : **2018**

							Slaughtering		Target indicators	

Standard requirements for the submission of programme for eradication, control and monitoring

Region	Species	Total number of animals	Number of animals under the programme	Number of animals expected to be tested	Number of animals to be individually tested	Number of expected positive animals	Number of animals with positive result expected to be slaughtered or culled	Total number of animals expected to be slaughtered	Expected % coverage at animal level	% positive animals (Expected animal prevalence)
England	Bovine	5 294 349	5 294 349	4 027 907	4 027 907	24 058	24 058	24 764	76,08	0,6
Wales	Bovine	1 111 194	1 111 194	1 184 789	1 184 789	5 487	5 487	5 981	106,62	0,46
Northern Ireland	Bovine	1 600 000	1 600 000	1 580 000	1 580 000	6 794	6 794	8 566	98,75	0,43
Total		8 005 543	8 005 543	6 792 696	6 792 696	36 339	36 339	39 311	84,85	0,53
Add a new row										

7.1.2.2 Targets on the testing of animals for year : 2019

Region	Species	Total number of animals	Number of animals under the programme	Number of animals expected to be tested	Number of animals to be individually tested	Number of expected positive animals	Slaughtering		Target indicators	
							Number of animals with positive result expected to be slaughtered or culled	Total number of animals expected to be slaughtered	Expected % coverage at animal level	% positive animals (Expected animal prevalence)
England	Bovine	5 294 349	5 294 349	4 027 907	4 027 907	23 674	23 674	24 369	76,08	0,59
Wales	Bovine	1 111 194	1 111 194	1 184 789	1 184 789	5 399	5 399	5 885	106,62	0,46
Northern Ireland	Bovine	1 600 000	1 600 000	1 580 000	1 580 000	6 636	6 636	8 408	98,75	0,42
Total		8 005 543	8 005 543	6 792 696	6 792 696	35 709	35 709	38 662	84,85	0,53
Add a new row										

Standard requirements for the submission of programme for eradication, control and monitoring

7.1.2.2 Targets on the testing of animals for year : **2020**

Region	Species	Total number of animals	Number of animals under the programme	Number of animals expected to be tested	Number of animals to be individually tested	Number of expected positive animals	Slaughtering		Target indicators		
							Number of animals with positive result expected to be slaughtered or culled	Total number of animals expected to be slaughtered	Expected % coverage at animal level	% positive animals (Expected animal prevalence)	
England	Bovine	5 294 349	5 294 349	4 027 907	4 027 907	23 295	23 295	23 979	76,08	0,58	X
Wales	Bovine	1 111 194	1 111 194	1 184 789	1 184 789	5 313	5 313	5 791	106,62	0,45	X
Northern Ireland	Bovine	1 600 000	1 600 000	1 580 000	1 580 000	6 478	6 478	8 250	98,75	0,41	X
Total		8 005 543	8 005 543	6 792 696	6 792 696	35 086	35 086	38 020	84,85	0,52	
Add a new row											

7.2 Targets on qualification of herds and animals

Targets on qualification of herds and animals

Standard requirements for the submission of programme for eradication, control and monitoring

7.2 Targets on qualification of herds and animals for year: 2016

Targets on the status of herds and animals under the programme																
Region	Animal species	Total number of herds and animals under the programme		Expected not free or not free from disease				Expected free or officially free from disease status suspended		Expected free from disease		Expected officially free from disease				
		Herds	Animals	Last check positive		Last check negative		Herds	Animals	Herds	Animals	Herds	Animals			
				Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals			
England	Bovines	51 692	5 294 349	0	0	1 917	607 269	0	0	1 991	338 409	0	0	47 784	4 348 671	X
Wales	Bovines	12 017	1 111 194	0	0	464	50 038	0	0	476	96 151	0	0	11 078	965 005	X
Northern Ireland	Bovines	23 579	1 600 000	0	0	486	88 118	712	82 161	1 182	91 515	0	0	21 199	1 338 206	X
Total		87 288	8 005 543	0	0	2 867	745 425	712	82 161	3 649	526 075	0	0	80 061	6 651 882	
Add a new row																

7.2 Targets on qualification of herds and animals for year: 2017

Targets on the status of herds and animals under the programme																
Region	Animal species	Total number of herds and animals under the programme		Expected not free or not free from disease				Expected free or officially free from disease status suspended		Expected free from disease		Expected officially free from disease				
		Herds	Animals	Last check positive		Last check negative		Herds	Animals	Herds	Animals	Herds	Animals			
				Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals			

Standard requirements for the submission of programme for eradication, control and monitoring

Region	Animal species	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals			
England	Bovines	51 692	5 294 349	0	0	1 861	589 476	0	0	1 933	328 494	0	0	47 898	4 376 379	X
Wales	Bovines	12 017	1 111 194	0	0	450	48 572	0	0	462	93 334	0	0	11 105	969 288	X
Northern Ireland	Bovines	23 343	1 600 000	0	0	450	81 509	658	75 996	1 094	84 651	0	0	21 142	1 357 841	X
Total		87 052	8 005 543	0	0	2 761	719 557	658	75 996	3 489	506 479	0	0	80 145	6 703 508	
													Add a new row			

7.2 Targets on qualification of herds and animals for year: 2018

Targets on the status of herds and animals under the programme																		
Region	Animal species	Herds	Animals	Expected not free or not free from disease				Expected free or officially free from disease status suspended				Expected free from disease				Expected officially free from disease		
				Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals			
				Expected unknown				Last check positive				Last check negative						
				Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	
	Total number of herds and animals under the programme			0	0	0	0	1 807	572 205	0	0	1 876	318 869	0	0	48 009	4 403 274	X
England	Bovines	51 692	5 294 349	0	0	0	0	1 807	572 205	0	0	1 876	318 869	0	0	48 009	4 403 274	X
Wales	Bovines	12 017	1 111 194	0	0	0	0	437	47 149	0	0	448	90 599	0	0	11 132	973 446	X
Northern Ireland	Bovines	23 110	1 600 000	0	0	0	0	441	79 879	645	74 479	1 072	82 958	0	0	20 952	1 362 684	X
Total		86 819	8 005 543	0	0	0	0	2 685	699 233	645	74 479	3 396	492 426	0	0	80 093	6 739 404	
													Add a new row					

Standard requirements for the submission of programme for eradication, control and monitoring

Region	Animal species	Herd	Animals	Herd	Animals	Herd	Animals	Herd	Animals	Herd	Animals	Herd	Animals			
England	Bovines	51 692	5 294 349	0	0	1 702	539 166	0	0	1 768	300 458	0	0	48 222	4 454 725	X
Wales	Bovines	12 017	1 111 194	0	0	412	44 426	0	0	422	85 368	0	0	11 183	981 400	X
Northern Ireland	Bovines	22 650	1 600 000	0	0	423	76 716	620	71 529	1 029	79 673	0	0	20 578	1 372 082	X
Total		86 359	8 005 543	0	0	2 537	660 308	620	71 529	3 219	465 499	0	0	79 983	6 808 207	
Add a new row																

7.3 Targets on vaccination or treatment

7.3.1 Targets on vaccination or treatment

7.3.1 Targets on vaccination or treatment for year: **2016**

Targets on vaccination or treatment programme																
Region	Animal species	Total number of herds in vaccination or treatment programme	Total number of animals in vaccination or treatment programme	Number of herds in vaccination or treatment programme	Number of animals expected to be vaccinated or treated	Number of doses of vaccine or treatment expected to be administered	Number of adults expected to be vaccinated	Number of young animals expected to be vaccinated								
Not permitted	Bovines	0	0	0	0	0	0	0	X							
Total		0	0	0	0	0	0	0								
Add a new row																

Standard requirements for the submission of programme for eradication, control and monitoring

7.3.1 Targets on vaccination or treatment for year: 2017

		Targets on vaccination or treatment programme									
Region	Animal species	Total number of herds in vaccination or treatment programme	Total number of animals in vaccination or treatment programme	Number of herds in vaccination or treatment programme	Number of herds expected to be vaccinated or treated	Number of animals expected to be vaccinated or treated	Number of doses of vaccine or treatment expected to be administered	Number of adults expected to be vaccinated	Number of young animals expected to be vaccinated		
Not permitted	Bovines	0	0	0	0	0	0	0	0	0	X
Total		0	0	0	0	0	0	0	0	0	
Add a new row											

7.3.1 Targets on vaccination or treatment for year: 2018

		Targets on vaccination or treatment programme									
Region	Animal species	Total number of herds in vaccination or treatment programme	Total number of animals in vaccination or treatment programme	Number of herds in vaccination or treatment programme	Number of herds expected to be vaccinated or treated	Number of animals expected to be vaccinated or treated	Number of doses of vaccine or treatment expected to be administered	Number of adults expected to be vaccinated	Number of young animals expected to be vaccinated		
Not permitted	Bovines	0	0	0	0	0	0	0	0	0	X
Total		0	0	0	0	0	0	0	0	0	
Add a new row											

Standard requirements for the submission of programme for eradication, control and monitoring

7.3.1 Targets on vaccination or treatment for year:

2019

		Targets on vaccination or treatment programme									
Region	Animal species	Total number of herds in vaccination or treatment programme	Total number of animals in vaccination or treatment programme	Number of herds in vaccination or treatment programme	Number of herds expected to be vaccinated or treated	Number of animals expected to be vaccinated or treated	Number of doses of vaccine or treatment expected to be administered	Number of adults expected to be vaccinated	Number of young animals expected to be vaccinated		
Not permitted	Bovines	0	0	0	0	0	0	0	0	0	X
Total		0	0	0	0	0	0	0	0	0	
Add a new row											

7.3.1 Targets on vaccination or treatment for year:

2020

		Targets on vaccination or treatment programme									
Region	Animal species	Total number of herds in vaccination or treatment programme	Total number of animals in vaccination or treatment programme	Number of herds in vaccination or treatment programme	Number of herds expected to be vaccinated or treated	Number of animals expected to be vaccinated or treated	Number of doses of vaccine or treatment expected to be administered	Number of adults expected to be vaccinated	Number of young animals expected to be vaccinated		
Not permitted	Bovines	0	0	0	0	0	0	0	0	0	X
Total		0	0	0	0	0	0	0	0	0	
Add a new row											

Standard requirements for the submission of programme for eradication, control and monitoring

7.3.2 Targets on vaccination or treatment of wildlife

7.3.2 Targets on vaccination or treatment of wildlife for year: **2016**

Targets on vaccination or treatment programme				
Region	Square km	Number of doses of vaccine or treatments expected to be administered in the campaign	Expected number of campaigns	Total number of doses of vaccine or treatment expected to be administered
England	400	900	20	900
Wales	308	1 900	11	1 900
Northern Ireland	100	280	1	280
Total		3 080		3 080
Add a new row				

7.3.2 Targets on vaccination or treatment of wildlife for year: **2017**

Targets on vaccination or treatment programme			
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Standard requirements for the submission of programme for eradication, control and monitoring

Region	Square km	Number of doses of vaccine or treatments expected to be administered in the campaign	Expected number of campaigns	Total number of doses of vaccine or treatment expected to be administered
England	400	900	20	900 X
Wales	20	400	10	400 X
Northern Ireland	100	280	1	280 X
Total		1 580		1 580
Add a new row				

7.3.2 Targets on vaccination or treatment of wildlife for year: **2018**

Targets on vaccination or treatment programme				
Region	Square km	Number of doses of vaccine or treatments expected to be administered in the campaign	Expected number of campaigns	Total number of doses of vaccine or treatment expected to be administered
England	400	900	20	900 X
Wales	20	400	10	400 X
Northern Ireland	100	280	1	280 X
Total		1 580		1 580

Standard requirements for the submission of programme for eradication, control and monitoring

		Add a new row
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7.3.2 *Targets on vaccination or treatment of wildlife for year:* **2019**

Targets on vaccination or treatment programme				
Region	Square km	Number of doses of vaccine or treatments expected to be administered in the campaign	Expected number of campaigns	Total number of doses of vaccine or treatment expected to be administered
England	400	900	20	900
Wales	11	200	4	200
Northern Ireland	100	280	1	280
Total		1 380		1 380
			Add a new row	

7.3.2 *Targets on vaccination or treatment of wildlife for year:* **2020**

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Standard requirements for the submission of programme for eradication, control and monitoring

Region	Square km	Number of doses of vaccine or treatments expected to be administered in the campaign	Expected number of campaigns	Total number of doses of vaccine or treatment expected to be administered	
England	400	900	20	900	X
Wales	11	200	4	200	X
Northern Ireland	100	280	1	280	X
Total		1 380		1 380	
Add a new row					

Standard requirements for the submission of programme for eradication, control and monitoring

8. Detailed analysis of the cost of the programme

8.1 Costs of the planned activities for year: **2016**

The blocks are repeated multiple times in case of first year submission of multiple program.

To facilitate the handling of your cost data, you are kindly requested to:

1. Fill-in the text fields IN ENGLISH
2. Limit as much as possible the entries to the pre-loaded options where available.
3. If you need to further specify a pre-loaded option, please keep the pre-loaded text and add your clarification to it in the same box.

1. Testing						
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested
Cost of analysis	Tuberculin test	Individual animal sample/test	11 292 378	4.58	51 719 091,24	yes X
Cost of analysis	Gamma-Interferon test	Individual animal sample/test	105 574	20.56	2 170 601,44	yes X
Cost of analysis	Bacterial culture	Individual animal sample/test	14 340	95.98	1 376 353,2	yes X
					Add a new row	
2. Vaccines						
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested
Purchase of vaccine/treatment of animal product	Badger vaccine	Vaccine dose	3 080	14.08	43366.4	yes X
					Add a new row	

Standard requirements for the submission of programme for eradication, control and monitoring

3. Compensation paid to owners							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Bovines	Slaughtering/culling with salvage value	Animal	36 878	1750.18	64,543,138.04	yes	X
					Add a new row		
4. Cleaning and disinfection							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
					Add a new row		
5. Slaughtering/culling costs							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
					Add a new row		
6. Other costs							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Salvage receipts	Bovines	Animal	36 878	-406.26	-14,982,056.28	yes	X
Purchase of tuberculic	Bovines	Dose	11 292 378	0.22	2,484,323.16	yes	X
					Add a new row		
Total					107 354 817.2		

Standard requirements for the submission of programme for eradication, control and monitoring

8.1 Costs of the planned activities for year:

2017

The blocks are repeated multiple times in case of first year submission of multiple program.

To facilitate the handling of your cost data, you are kindly requested to:

1. Fill-in the text fields IN ENGLISH
2. Limit as much as possible the entries to the pre-loaded options where available.
3. If you need to further specify a pre-loaded option, please keep the pre-loaded text and add your clarification to it in the same box.

1. Testing							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Cost of analysis	Tuberculin test	Individual animal sample/test	11 289 912	4.58	51 707 796,96	yes	X
Cost of analysis	Gamma-Interferon test	Individual animal sample/test	105 574	20.56	2 170 601,44	yes	X
Cost of analysis	Bacterial culture	Individual animal sample/test	14 337	95.98	1 376 065,26	yes	X
					Add a new row		
2. Vaccines							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Purchase of vaccine/treatment of animal product	Badger vaccine	Vaccine dose	1 580	14.08	22246.4	yes	X
					Add a new row		
3. Compensation paid to owners							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	

Standard requirements for the submission of programme for eradication, control and monitoring

Bovines	Slaughtering/culling with salvage value	Animal	34 592	1750.18	60,542,226.56	yes	X
					Add a new row		
4. Cleaning and disinfection							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
					Add a new row		
5. Slaughtering/culling costs							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
					Add a new row		
6. Other costs							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Salvage receipts	Bovines	Animal	34 592	-406.26	-14,053,345.92	yes	X
Purchase of tuberculins	Bovines	Dose	11 289 912	0.22	2,483,780.64	yes	X
					Add a new row		
Total					104 249 371.34		

Standard requirements for the submission of programme for eradication, control and monitoring

8.1 Costs of the planned activities for year:

2018

The blocks are repeated multiple times in case of first year submission of multiple program.

To facilitate the handling of your cost data, you are kindly requested to:

1. Fill-in the text fields IN ENGLISH
2. Limit as much as possible the entries to the pre-loaded options where available.
3. If you need to further specify a pre-loaded option, please keep the pre-loaded text and add your clarification to it in the same box.

1. Testing							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Cost of analysis	Tuberculin test	Individual animal sample/test	11 287 448	4.58	51 696 511,84	yes	X
Cost of analysis	Gamma-Interferon test	Individual animal sample/test	105 574	20.56	2 170 601,44	yes	X
Cost of analysis	Bacterial culture	Individual animal sample/test	14 334	95.98	1 375 777,32	yes	X
					Add a new row		
2. Vaccines							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Purchase of vaccine/treatment of animal product	Badger vaccine	Vaccine dose	1 580	14.08	22246.4	yes	X
					Add a new row		
3. Compensation paid to owners							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	

Standard requirements for the submission of programme for eradication, control and monitoring

Bovines	Slaughtering/culling with salvage value	Animal	32 469	1750.18	56,826,594.42	yes	X
					Add a new row		
4. Cleaning and disinfection							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
					Add a new row		
5. Slaughtering/culling costs							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
					Add a new row		
6. Other costs							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Salvage receipts	Bovines	Animal	32 469	-406.26	-13,190,855.94	yes	X
Purchase of tuberculins	Bovines	Dose	11 287 448	0.22	2,483,238.56	yes	X
					Add a new row		
Total					101 384 114.04		

Standard requirements for the submission of programme for eradication, control and monitoring

8.1 Costs of the planned activities for year: **2019**

The blocks are repeated multiple times in case of first year submission of multiple program.

To facilitate the handling of your cost data, you are kindly requested to:

1. Fill-in the text fields IN ENGLISH
2. Limit as much as possible the entries to the pre-loaded options where available.
3. If you need to further specify a pre-loaded option, please keep the pre-loaded text and add your clarification to it in the same box.

1. Testing							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Cost of analysis	Tuberculin test	Individual animal sample/test	11 284 987	4.58	51 685 240,46	yes	X
Cost of analysis	Gamma-Interferon test	Individual animal sample/test	105 574	20.56	2 170 601,44	yes	X
Cost of analysis	Bacterial culture	Individual animal sample/test	14 332	95.98	1 375 585,36	yes	X
					Add a new row		
2. Vaccines							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Purchase of vaccine/treatment of animal product	Badger vaccine	Vaccine dose	1 380	14.08	19 430.4	yes	X
					Add a new row		
3. Compensation paid to owners							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	

Standard requirements for the submission of programme for eradication, control and monitoring

Bovines	Slaughtering/culling with salvage value	Animal	30 493	1750.18	53,368,238.74	yes	X
					Add a new row		
4. Cleaning and disinfection							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
					Add a new row		
5. Slaughtering/culling costs							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
					Add a new row		
6. Other costs							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Salvage receipts	Bovines	Animal	30 493	-406.26	-12,388,086.18	yes	X
Purchase of tuberculini	Bovines	Dose	11 284 987	0.22	2,482,697.14	yes	X
					Add a new row		
Total					98 713 707.36		

Standard requirements for the submission of programme for eradication, control and monitoring

8.1 Costs of the planned activities for year:

2020

The blocks are repeated multiple times in case of first year submission of multiple program.

To facilitate the handling of your cost data, you are kindly requested to:

1. Fill-in the text fields IN ENGLISH
2. Limit as much as possible the entries to the pre-loaded options where available.
3. If you need to further specify a pre-loaded option, please keep the pre-loaded text and add your clarification to it in the same box.

1. Testing							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Cost of analysis	Tuberculin test	Individual animal sample/test	11 282 528	4.58	51 673 978,24	yes	X
Cost of analysis	Gamma-Interferon test	Individual animal sample/test	105 574	20.56	2 170 601,44	yes	X
Cost of analysis	Bacterial culture	Individual animal sample/test	14 329	95.98	1 375 297,42	yes	X
					Add a new row		
2. Vaccines							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Purchase of vaccine/treatment of animal product	Badger vaccine	Vaccine dose	1 380	14.08	19430.4	yes	X
					Add a new row		
3. Compensation paid to owners							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	

Standard requirements for the submission of programme for eradication, control and monitoring

Bovines	Slaughtering/culling with salvage value	Animal	28 657	1750.18	50,154,908.26	yes	X
					Add a new row		
4. Cleaning and disinfection							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
					Add a new row		
5. Slaughtering/culling costs							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
					Add a new row		
6. Other costs							
Cost related to	Specification	Unit	Number of units	Unitary cost in EUR	Total amount in EUR	Union funding requested	
Salvage receipts	Bovines	Animal	28 657	-406.26	-11,642,192.82	yes	X
Purchase of tuberculिन	Bovines	Dose	11 282 528	0.22	2,482,156.16	yes	X
					Add a new row		
Total					96 234 179,1		

Standard requirements for the submission of programme for eradication, control and monitoring

8.2. Financial informaton

1. Identification of the implementing entities - financial circuits/flows

Identify and describe the entities which will be in charge of implementing the eligible measures planned in this programme which costs will constitute the reimbursement/payment claim to the EU. Describe the financial flows/circuits followed.

Each of the following paragraphs (from a to e) shall be filled out if EU cofinancing is requested for the related measure.

a) Implementing entities - **sampling**: who perform the official sampling? Who pays?

(e.g. authorised private vets perform the sampling and are paid by the regional veterinary services (state budget); sampling equipment is provided by the private laboratory testing the samples which includes the price in the invoice which is paid by the local state veterinary services (state budget))

(max. 32000 chars) :

Tuberculin testing

Routine and breakdown tuberculin testing in England and Wales is performed by private vets authorised as Official Veterinarians or by APHA staff and paid for by Defra and Welsh Government.

Statutory pre-movement testing and testing for intra-EU trade in England and Wales is performed by private vets authorised as Official Veterinarians and paid for by farmers.

Tuberculin testing in Northern Ireland is performed by approved private veterinary practitioners on behalf of DARD or (testing) veterinary officers (TVOs and VOTs) employed directly by DARD, and paid for by DARD.

IFN-gamma sampling

Sampling for IFN-gamma testing in England and Wales is carried out by APHA staff and paid for by Defra and Welsh Government.

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Sampling for IFN-gamma testing in Northern Ireland is carried out by DARD Veterinary Services and paid for by DARD.

b) Implementing entities - **testing**: who performs the testing of the official samples? Who pays? (e.g. regional public laboratories perform the testing of official samples and costs related to this testing are entirely paid by the state budget)

(max. 32000 chars):

Testing of official samples is carried out in government (APHA or AFBI) laboratories and paid for by Defra, Welsh Government and DARD.

c) Implementing entities - **compensation**: who performs the compensation? Who pays? (e.g. compensation is paid by the central level of the state veterinary services, or compensation is paid by an insurance fund fed by compulsory farmers contribution)

(max. 32000 chars):

Compensation is paid by Defra, Welsh Government and DARD in Northern Ireland.

d) Implementing entities - **vaccination**: who provides the vaccine and who performs the vaccination? Who pays the vaccine? Who pays the vaccinator? (e.g. farmers buy their vaccine to the private vets, send the paid invoices to the local state veterinary services which reimburse the farmers of the full amount and the vaccinator is paid by the regional state veterinary services)

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(max. 32000 chars) :

Defra purchases an annual consignment of badger vaccine ('BadgerBCG') and pays for the entire amount upfront.

The Danish manufacturer sends the vaccine directly to two vaccine wholesalers which are contracted to sell the vaccine on Defra's behalf. BadgerBCG is a 'POM-V' vaccine, meaning that anyone purchasing it must be in possession of a veterinary prescription. The wholesalers add 15% to the cost of each vaccine dose as profit. Defra reclaims the remaining sale price of the doses sold. All purchases are recorded by the wholesalers and details provided to Defra on a monthly basis. If any doses remain unsold at the end of the expiry date, Defra pays the wholesaler to destroy it.

The majority of the vaccine is purchased from the wholesalers by the Welsh Government and DARD in Northern Ireland.

A small amount of vaccine is purchased for private vaccination projects run by wildlife groups and private individuals. Projects in England supported under Defra's Badger Edge Vaccination Scheme (Aid number: SA 39448) are eligible to receive a Defra grant towards the cost of vaccination, including the purchase price of the vaccine itself. The Welsh Government also operates a similar grant scheme (Aid number: SA.39589) in Wales.

Vaccination is performed by vets or by trained 'lay vaccinators' (non-vets who have a 'certificate of competence' to vaccinate).

e) Implementing entities - **other essential measures:** who implement this measure? Who provide the equipment/service? Who pays?

(max. 32000 chars) :

Other essential measures implemented by APHA in England and Wales and DARD Veterinary Services in Northern Ireland are paid for by Defra, Welsh Government and DARD.

Standard requirements for the submission of programme for eradication, control and monitoring

2 Co-financing rate (see provisions of applicable Work Programme)

The maximum co-financing rate is in general fixed at 50%. However based on provisions of Article 5.2 and 5.3 of the Regulation (EU) No 652/2014, we request that the co-financing rate for the reimbursement of the eligible costs would be increased:

Up to 75% for the measures detailed below

Up to 100% for the measures detailed below

3. Source of funding of eligible measures

All eligible measures for which cofinancing is requested and reimbursement will be claimed are financed by public funds.

yes

no

Standard requirements for the submission of programme for eradication, control and monitoring

Attachments

IMPORTANT :

- 1) The more files you attach, the longer it takes to upload them .
- 2) This attachment files should have one of the format listed here : jpg, jpeg, tiff, tif, xls, xlsx, doc, docx, ppt, pptx, bmp, pna, pdf.
- 3) The total file size of the attached files should not exceed 2 500Kb (+- 2.5 Mb). You will receive a message while attaching when you try to load too much.
- 4) IT CAN TAKE **SEVERAL MINUTES TO UPLOAD ALL THE ATTACHED FILES**. Don't interrupt the uploading by closing the pdf and wait until you have received a Submission Number!
- 5) Only use letters from a-z and numbers from 1-10 in the attachment names, otherwise the submission of the data will not work.

List of all attachments

	Attachment name	File will be saved as (only a-z and 0-9 and -_) :	File size
	6685_4188.pdf	6685_4188.pdf	69 kb
	6685_4189.pdf	6685_4189.pdf	44 kb
	6685_4190.pdf	6685_4190.pdf	227 kb
	6685_4191.pdf	6685_4191.pdf	89 kb
	6685_4192.pdf	6685_4192.pdf	142 kb
	6685_4193.pdf	6685_4193.pdf	41 kb
	6685_4194.pdf	6685_4194.pdf	67 kb

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	6685_4195.pdf	6685_4195.pdf	141 kb
		Total size of attachments :	819 kb