

Bovine Tuberculosis Research Briefing

January 2025



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Bovine Tuberculosis

Research Briefing

January 2025

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This research briefing provides an overview of Bovine Tuberculosis in Wales. It details the Welsh Government's key policies and explores proposed changes.



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1. What is bovine TB?

Bovine Tuberculosis (TB) is an infectious disease caused by the bacteria *Mycobacterium bovis* (*M. bovis*). It attacks the lungs and lymph nodes of an animal. The disease primarily affects cattle but can also infect other animals including badgers, deer, goats, pigs and camelids (llamas and alpacas). The disease can be transmitted before any symptoms are detected and can quickly spread through herds. Early detection and management of infected cattle is therefore imperative for controlling the spread of the disease.

Bovine TB is a zoonotic disease, meaning that it can be transmitted from animals to humans. However, pasteurisation of milk and high meat inspection standards mean that human cases of TB caused by *M. bovis* are rare in Wales.

2. How prevalent is bovine TB in Wales?

Progress in controlling bovine TB in Wales is monitored through epidemiological data collected by the Animal and Plant Health Agency (APHA). This is summarised in quarterly updates on the Welsh Government's [bovine TB dashboard](#), and annual [surveillance reports](#). The bovine TB dashboard is updated on a quarterly basis and contains relevant bovine TB statistics, including:

- Bovine TB incidence;
- Slaughtered cattle;
- Bovine TB-free herds; and
- Bovine TB recurrence.

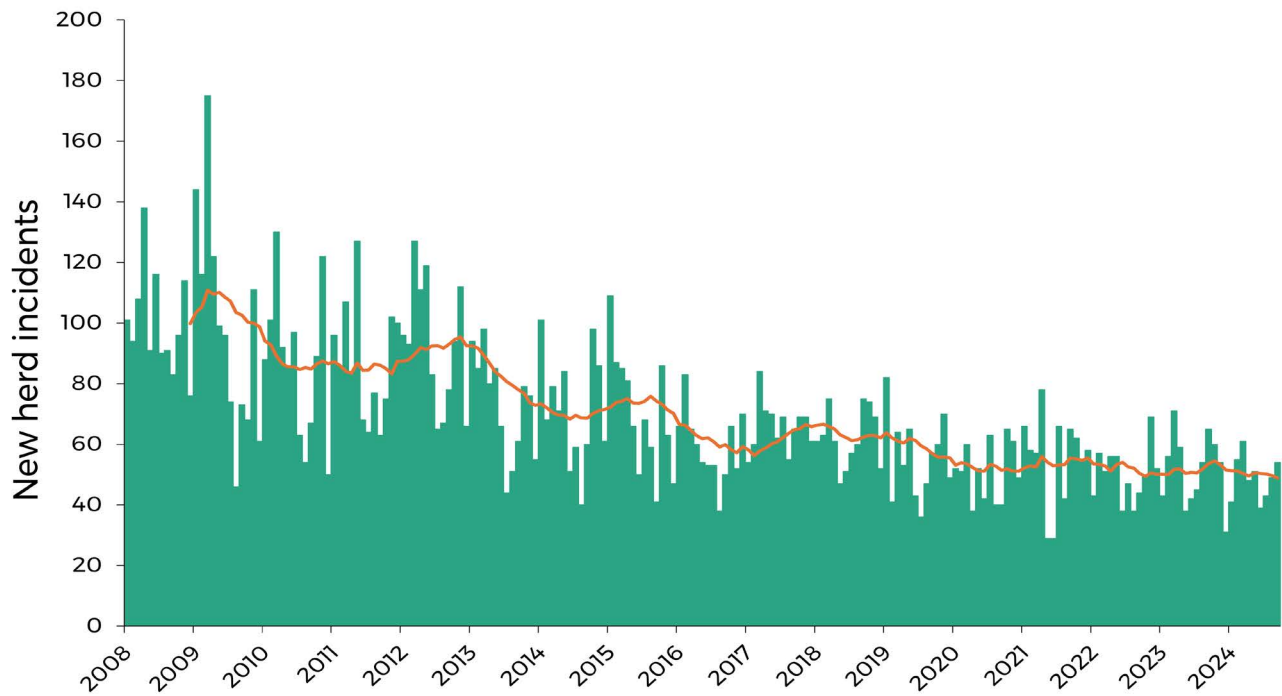
The [latest update](#) from December 2024 contains data up to 30 September 2024. It is important to view the data in the context of long-term trends, given short-term fluctuations.

[The most recent data](#) (the 12 months to September 2024) can be compared to data from five years ago (12 months to September 2019) to explore trends:

- In the 12 months to September 2024, there were 586 new incidents. For the same period to September 2019 there were 683 new incidents. This represents a 14.2% decrease (Figure 1);
- In the 12 months to September 2024, 12,278 cattle were slaughtered for bovine TB control. For the same period to September 2019, 13,078 were slaughtered. This represents a 6.1% decrease (Figure 2);

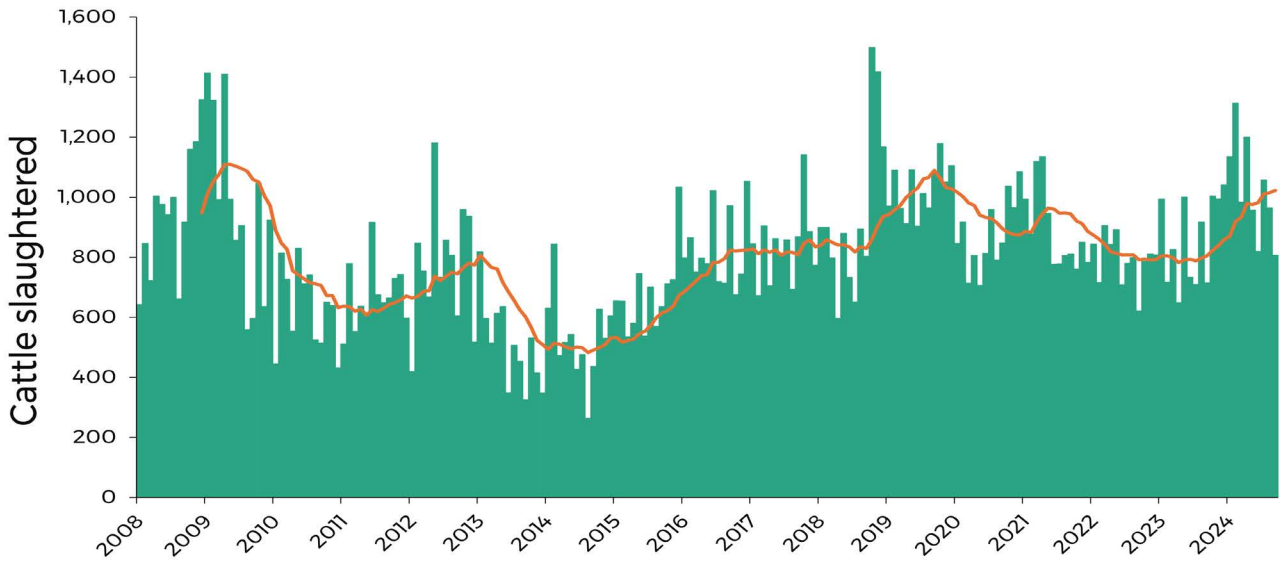
- 94.6% of herds were bovine TB free in Wales at end of September 2024, 94.6% of herds were bovine TB free at the end of September 2019; and
- At the end of September 2024, there were 865 herds under bovine TB restriction, compared with 912 herds under restriction at the end of September 2019. This represents a 5.2% decrease.

Figure 1: The number of new herd incidents in Wales.



Source: [APHA bovine TB surveillance data](#)

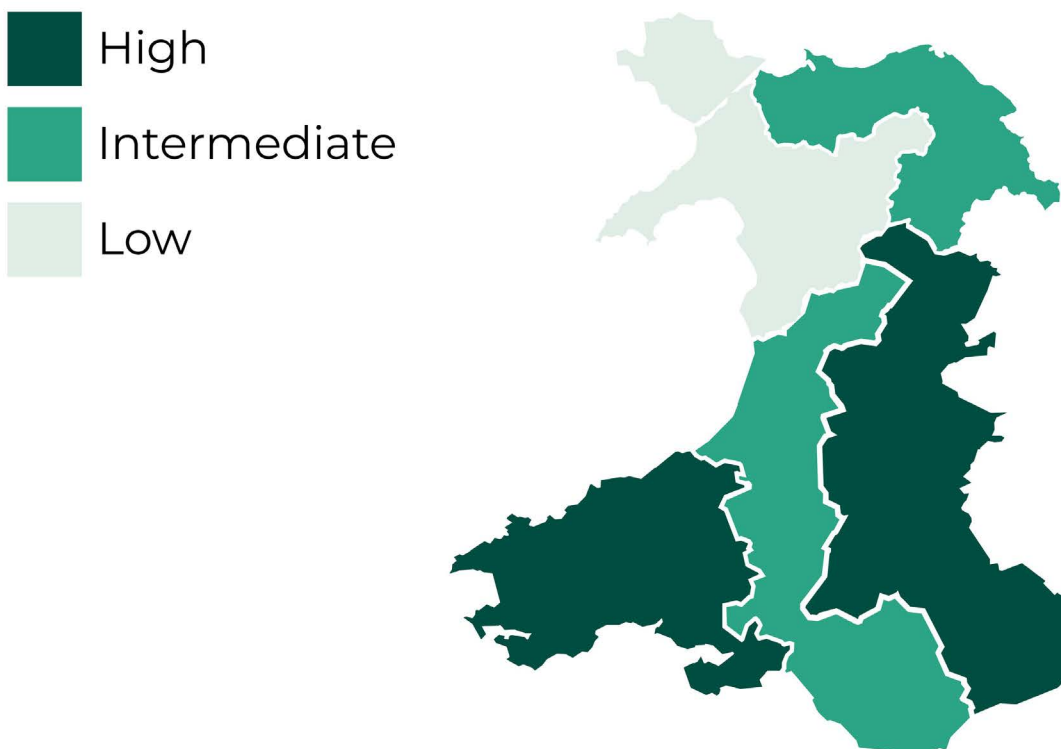
Figure 2: The total number of cattle slaughtered for bovine TB control in Wales.



Source: [APHA bovine TB surveillance data](#)

The Welsh Government assesses the risk level of bovine TB in a regionalised approach using bovine TB Areas (policy detailed below) (Figure 3).

Figure 3: Bovine TB regionalisation map as of November 2024 showing the Low, Intermediate and High TB Areas, indicating level of incidence.



Source: [APHA bovine TB surveillance data](#)

3. What is the Welsh Government's approach to controlling bovine TB?

The Welsh Government aims to have **bovine TB fully eradicated by 2041**.

The **2017 Wales TB Eradication Programme** sets out the long term vision for the eradication of bovine TB in Wales and introduced the regionalised approach to control the disease. The regionalised approach created Low, Intermediate and High TB Areas based on the incidence of bovine TB (Figure 3). Wales is divided into spatial units for epidemiological purposes, with the TB Areas composed of clusters of spatial units with similar bovine TB incidence. In the different TB Areas, the progress of the disease can be monitored, and a more local level approach can be taken, when necessary.

The Welsh Government ran a consultation on **a refreshed TB Eradication Programme**, which closed in February 2022. The consultation sought views on a wide range of proposed actions, including changes to bovine TB testing protocols, bovine TB compensation arrangements and informed purchasing (detailed below). The summary of responses to the consultation was **published in May 2022**.

Following the consultation a new **Wales Bovine TB Eradication Programme Delivery Plan** (hereafter the 'Delivery Plan') was announced in March 2023 and extends until March 2028. The Delivery Plan sits under the 2017 Bovine TB Eradication Programme. It outlines a plan aimed at achieving a bovine TB free Wales by 2041 and includes several significant changes to bovine TB management, outlined further below.

Bovine TB Eradication Programme governance

The Bovine **TB Eradication Programme Board** oversees the Bovine TB Eradication Programme by providing policy advice and guidance to the Welsh Government. The board is largely composed of farmers and representatives from farming unions. It meets quarterly with the aim of ensuring an approach that considers stakeholder perspectives alongside scientific evidence.

The **Bovine TB Technical Advisory Group (TAG)** provides independent, expert advice to the Bovine TB Eradication Programme Board and the Welsh Government on the scientific and technical aspects of the Bovine TB Eradication Programme. In April 2024, the Welsh Government **announced the TAG membership**. The TAG first met on **17 April 2024**. Its first priority was to review the Welsh Government's on-

farm slaughter policy (discussed below).

The Delivery Plan outlines future priority areas for consideration by the TAG:

- bovine TB surveillance testing regime;
- cattle vaccination deployment; and
- assessing the impact of slurry on bovine TB transmission.

Bovine TB surveillance and testing

The Welsh Government has testing programmes for:

- surveillance (screening cattle for the presence of infection);
- breakdown management (where a herd is known to have infection present); and
- where there is suspicion of infection (testing prompted by symptoms in the herd).

These testing programmes determine the bovine TB status of a herd and facilitate trade in cattle and products, both domestic and international.

Under the Tuberculosis (Wales) Order 2010 anyone who keeps cattle in Wales is required to have their cattle tested for bovine TB. Since 2010, every herd in Wales has been **tested, at least, annually for bovine TB**. Routine bovine TB tests are paid for by the Welsh Government. Herds in the Intensive Action Area (IAA) in west Wales are tested every 6 months.

The IAA was established in 2010 to tackle high levels of bovine TB. Increased measures are applied to tackle all sources of bovine TB. This includes:

- 6 monthly testing;
- stricter cattle controls;
- improved biosecurity;
- badger vaccination programmes; and
- testing of goats and camelids.

Bovine TB testing in Wales primarily uses the tuberculin skin test, which has the highest specificity of current tests but a lower sensitivity. Specificity refers to a test's ability to correctly identify uninfected animals as negative, while sensitivity refers to the test's ability to correctly identify infected animals as positive. This gives a high degree of confidence that most skin test reactors are animals truly infected with TB,

reducing the chances of 'false positive' results.

This test is supported by the use of Interferon-gamma and IDEXX blood tests, which have higher sensitivity but lower specificity. There is currently no bovine TB test that can identify all infected animals as positive (100% sensitivity) and all uninfected animals as negative (100% specificity). For this reason, bovine TB testing in Wales increasingly uses a combination of tests to achieve the best outcome for any given situation.

Effective surveillance plays an important part in identifying bovine TB infection early. Early identification is necessary so that steps can be taken to stamp out disease in the infected herd, reduce the spread of disease and to facilitate trade with other countries. Once infection has been identified in a herd, testing is then increased, in order to identify other infected animals and return the herd to bovine TB-free status as quickly as possible.

Infected cattle are slaughtered and owners paid compensation for each slaughtered animal by the Welsh Government. Keepers of cattle slaughtered under the Bovine TB Eradication Programme are paid at market value ascertained by individual valuations of their animals (discussed further below).

Pre-movement and post-movement testing

The Welsh Government **highlights a key reason for bovine TB spread** is cattle movements. Pre-movement testing (PrMT) and post-movement testing (PoMT) aim to reduce risk.

Pre-movement testing helps to ensure cattle moving between herds or regions do not carry bovine TB:

- **Requirement:** All cattle moving in Wales must have a clear pre-movement test within 60 days of the move. The animal undergoes a skin test administered by a vet, and the results are valid for 60 days (30 days for moves to Scotland); and
- **Exemptions:** Calves under 42 days old, movements to veterinary treatment, direct to slaughter, and certain agricultural shows are exempt.

A PrMT is a private test organised and paid for by the farmer with their vet. A routine test paid for by the Welsh Government can also be considered as a PrMT when it meets the testing requirements.

Post-movement testing (PoMT) helps to ensure that any bovine TB infection that was missed during PrMT is detected and can be managed appropriately:

- **Requirement:** All cattle need a PoMT, within 60-120 days of arrival onto a holding when they are moved into:
 - the Low TB Area of Wales from:
 - an Intermediate TB Area or High TB Area in Wales
 - the Edge Area or High Risk Area of England
 - Northern Ireland
 - an Intermediate TB Area of Wales from:
 - a High TB Area in Wales
 - the High Risk Area of England
 - Northern Ireland

Where a calf (under the age of 42 days) is purchased from a higher risk area and moved into the Low or Intermediate TB Areas, the purchaser must PoMT the calf within 60-120 days of arrival.

- **Exemptions:** Movements to slaughter, veterinary treatment, and certain finishing units are exempt. Movements from the Low TB area of England also do not necessitate a PoMT.

A PoMT is a private test organised and paid for by the farmer with their vet. A routine test paid for by the Welsh Government is also considered as a PoMT, when it meets the testing requirements.

To combat rising bovine TB levels in Low TB Areas, on 1 February 2024, the Welsh Government introduced mandatory **pre-movement and post-movement testing** measures. Prior to this, pre-movement testing in Low TB Areas was not required.

Informed purchasing

The **Delivery Plan highlights potential changes** around 'informed purchasing'. This relates to the provision and display of bovine TB information at the point of sale.

There is currently a voluntary approach to **displaying bovine TB information at the point of sale**, with farmers encouraged by the Welsh Government to make their herds' testing history available to allow assessment of bovine TB risk-level. **This is not currently mandated.**

In **November 2019 the then Minister for Environment, Energy and Rural Affairs, Lesley Griffiths MS, said** officials had started working with DEFRA to mandate the display of bovine TB information at the point of sale. The Delivery Plan **includes a**

long term aim of introducing a mandatory informed purchasing regime through new legislation. It acknowledges the complexities involved in this, and the need to ensure consistency across Wales and England. The then Minister for Rural Affairs and North Wales, and Trefnydd, Lesley Griffiths MS, **wrote to the Senedd's Economy, Trade and Rural Affairs Committee in July 2023** highlighting that further engagement with the industry and UK Government is planned via the TAG.

There have been a mix of reactions to the proposals. **NFU Cymru is concerned** that a system of informed purchasing could establish a “two-tier market”, which would negatively impact businesses who may have little control over their disease status due to external factors (including infected wildlife). The Farmers' Union of Wales (FUW) warned **farmers would sell their animals outside of Wales** if the system is not rolled out across the UK.

RSPCA Cymru support the proposal to mandate bovine TB information at point of sale. It suggests including information on whether animals in the herd have been acquired from high-risk areas and when such animals were introduced to the herd.

Bovine TB compensation

The **Tuberculosis (Wales) Order 2010** ('2010 Order') requires the Welsh Government to pay cattle owners compensation for animals slaughtered due to bovine TB. Under the current system, a valuer individually assesses the market value of each animal. The maximum valuation of an animal is £5,000. There are reductions to the compensation paid if keepers breach the 2010 Order – for example compensation for animals that have been moved illegally may be reduced by 95%.

The Welsh Government has **overspent on the bovine TB compensation budget since 2016** and **has described** the current system as “unsustainable”. The Delivery Plan states the Welsh Government's intention to engage with the industry on bovine TB payment options in the short term, with the longer term aim of changing the bovine TB payment regime. **It aims for** a “fair and proportionate” approach that “reflects the financial resources available”.

Alternative compensation systems have been proposed by the Welsh Government based on a tabular valuation system where an average market price is used to calculate compensation. The Welsh Government said it could save £5.1 million annually by switching to a table payment scheme. Table prices would be updated according to sales data to reflect pedigree and commercial cattle values.

Another option is the table valuation system with an increase to payment based on membership of an approved animal health accreditation scheme.

The tabular proposals are similar to England's payment system, **where a monthly table of payment values** is published for 51 different categories of cattle. Keepers in Scotland **are paid the market value of the animal**, with a maximum cap of £7,500. Similarly, in Northern Ireland, keepers are paid the **market value of the animal after valuation**. There are proposals to reduce the payment system in Northern Ireland to **90% of the market value, which will further reduce to 75%** over a phased period.

The final option proposed in the consultation, is bovine TB payments determined "by an **industry led independent group that take into account eligibility criteria** such as compliance with the TB Order and risk based trading" An industry levy would partly fund bovine TB payment costs. **The 2021 consultation says:**

This group would be funded partly by Government and partly by a new beef and milk levy. In Wales a levy is jointly paid (per head) by the producer and slaughterer/exporter to Hybu Cig Cymru for cattle slaughtered in Wales or exported, dairy farmers pay a levy to AHDB. This new levy could be potentially collected by AHDB and Hybu Cig Cymru, however details of associated practicalities and potential costs would need to be explored.

The Welsh Government says this approach would be similar to that taken in **New Zealand**.

RSPCA Cymru said the **tabular proposals for compensation are reasonable**, but that the option involving industry levies is the most appealing. Both **NFU Cymru and FUW** "reject" the proposal to move to a tabular valuation system. **FUW argues** it is "unjust" if payments are below the animals' value, whilst some may receive overpayments. **NFU Cymru says** the only fair way to value cattle is on the basis of their individual merits.

In January 2024, the then **Minister for Rural Affairs and North Wales, and Trefnydd, Lesley Griffiths MS, told the Senedd's Economy, Trade and Rural Affairs (ETRA) Committee:**

It is estimated a full review will take up to 24 months to complete before any financial savings may be realised. This review will commence once resources allow.

The **Minister told the ETRA Committee** that she "hoped" the review of compensation payments would start in 2024.

On-farm slaughter changes

NFU Cymru **made recommendations** to the TAG regarding on farm slaughter following an **NFU Cymru survey** on the impact of bovine TB on farmers. It said that 85% of respondents (507 farmers responded) reported bovine TB to have negatively impacted their own or a family members mental health. **NFU Cymru says that it is the on-farm slaughter of in calf cows** that causes the most distress to farmers. The Cabinet Secretary for Climate Change and Rural Affairs, Huw Irranca-Davies MS ('the Cabinet Secretary'), **said that the Welsh Government understand** "the impact bovine TB has on Welsh farmer's mental health and have listened to the views of the farming community".

After its meeting on 17 April 2024, **the TAG made recommendations** to the Cabinet Secretary on the on-farm slaughter of TB infected animals. On 16 May 2024 **the Cabinet Secretary announced** he had accepted the TAG's recommendations, saying immediate changes will be made to the on-farm slaughter policy. Before the changes, cattle infected with TB were slaughtered on-farm as they were not able to travel due to welfare grounds.

At the request of the Welsh Government, **APHA Wales implemented an interim process** from 29 May 2024 to offer delayed removal of in calf cattle. As of 4 November 2024, subject to a risk assessment from a vet and in compliance with defined biosecurity conditions, **farmers can choose to delay the removal of infected animals that:**

- are in calf and due within 60 days;
- are recently calved;
- are within a medicine withdrawal; and
- have a passport or identification discrepancy that can be easily resolved.

In May 2024, the **Cabinet Secretary asked officials to work** with NFU Cymru, FUW and other cattle sector representatives to establish a working group to look at minimising on-farm slaughter and its impacts through "co-design and delivery".

Cattle vaccination

The Department for Environment, Food and Rural Affairs (**DEFRA carries out bovine TB research and development, including on cattle vaccination, on behalf of the three administrations** in Great Britain (Welsh Government, UK Government and Scottish Government).

The three Great Britain administrations are funding a project aimed at securing UK market authorisations for a **cattle vaccine (CattleBCG), and a new skin test** (DST-F or DIVA) to detect infected animals among vaccinated animals.

A barrier to cattle vaccination has been that **vaccinated animals may test positive for infection using the current tuberculin skin tests**. The DIVA test has been developed to induce an **immune response in M. bovis-infected animals** (and therefore a positive skin test result), but not in animals that have been vaccinated.

The UK Government anticipates this will help **save thousands of cattle each year** that would otherwise have been culled to prevent the spread of disease.

APHA is leading the trials of the vaccine in three phases:

- Phase 1: Assessing the DIVA skin test (DST-F) specificity and safety in unvaccinated animals from bovine TB-free cattle herds in the Low Risk Area of England. Completed in May 2022.
- Phase 2: Assessing the safety of both the CattleBCG vaccine and DST-F, and the specificity of DST-F in vaccinated animals (and unvaccinated controls) from bovine TB-free cattle herds in low bTB risk areas of England and Wales. Completed in March 2024.
- Phase 3: Assessing BCG vaccination and DST-F specificity in a broader cohort of herds in **Low Risk Areas of England** and the Low TB Areas of Wales. Expected completion in 2026.

The Delivery Plan includes an aim to deliver an effective cattle TB vaccination strategy upon licensing of the CattleBCG vaccine and DIVA test.

Badger vaccination and management

The **All Wales Badger Found Dead Survey**, which started in 2014, provides information on bovine TB levels in badgers. Between 2014-2024, of the 2,881 badger carcasses tested, 206 (7.2%) were positive for bovine TB.

The Welsh Government's **Programme for Government states** it will “forbid the culling of badgers to control the spread of bovine TB in cattle”. Instead, the Welsh Government is committed to a **badger vaccination programme** which began in 2012.

A **Badger Vaccination Grant** was introduced in 2019 and currently supports 42 farms in vaccinating badgers on their land.

In response to an **increase in bovine TB incidence in Anglesey**, a badger and biosecurity survey was undertaken on Holy Island in March 2023 to assess badger activity. The **first year of a four year targeted vaccination programme on Holy Island was completed** in October 2023. As part of the Badger Found Dead Survey, **no positive badgers have been identified on Anglesey** to date (as of December 2024).

Unlike in Wales, where badger vaccination is used to limit the transmission of bovine TB, in England, **badgers have been culled**. In August 2024, the UK Government announced it is seeking a data-led and scientific approach to **end the badger cull by the end of this Parliament**. A **badger vaccination study will be conducted in England** to establish the impact of badger vaccination on the incidence of bovine TB in cattle. The UK Government hope that this study **will encourage farmers to take part in badger vaccination**.

The Pembrokeshire Project

The **Pembrokeshire Project** began in August 2023 with the aim of tackling “deep-seated levels” of infection in parts of Pembrokeshire, where **bovine TB incidence and prevalence have been increasing**. Through the project, the Welsh Government aims to facilitate collaboration between vets and farmers and “empower local informed decision making and leadership in disease control”.

The project is developing and implementing novel approaches to bovine TB control, over and above the statutory measures currently used in the area. It focuses on identifying residual disease risk in clear testing cattle, and developing pathways for mitigating cattle to cattle transmission. The Welsh Government **intends to apply effective strategies**, identified through the project, across Wales to reduce bovine TB levels.