



Testing for TB in your herd what this means to you (Wales)

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Section 1 : Why do we test?

Bovine TB

Bovine TB is a chronic, infectious disease of bovine animals (cattle, buffalo and bison) that mainly affects the respiratory system. It is caused by the bacterium *Mycobacterium bovis* (*M. bovis*), which can also infect and cause TB in badgers, deer, goats, pigs and many other mammals, including people.

Bovine TB can spread to cattle in a number of ways, including contact with

- an infected domestic animal (usually cattle)
- infected wild animals (including badgers)
- contaminated equipment, feedstuffs, slurry etc

The risks to people from bovine TB

While people can be infected with *M.bovis*, most cases of TB in humans in Great Britain arise from infection with the human tubercle bacillus (*M. tuberculosis*). This bacillus is closely related to *M. bovis* but it is transmitted through close contact between people rather than from cattle. The risk of people contracting bovine TB from cattle in Great Britain is currently considered very low, but cases have been recorded in the last few years. The risk is increased where unpasteurised milk or milk products are consumed.

See the Health Protection Agency leaflet for further information
www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1259151943662

Testing cattle for bovine TB

We have a testing programme in place for:

- surveillance (screening cattle for presence of infection)
- breakdown management, (where a herd is known to have infection present) and
- where there is suspicion of infection

These testing programmes determine the TB status of the herd and facilitate trade in cattle and products, both domestic and international. Testing is carried out to:

- protect public health
- identify TB infected cattle and prevent it spreading and
- make sure that cattle do not suffer because of TB

Anyone who keeps cattle is required by law to have their cattle tested for bovine TB. Cattle are tested at an interval that is appropriate to both the incidence of TB infection in the area where your herd is and the risk that your herd presents which is related to your type of enterprise. All cattle herds in Wales are currently tested at least once a year.

Testing in some areas such as the 'Intensive Action Area' in West Wales is more frequent and information can be found on the Welsh Government website www.wales.gov.uk/topics/environmentcountryside/ahw/disease/bovinetuberculosis/intensiveactionarea/cattle-controls-iaa/;jsessionid=E478E1374DD4009BB548CC7235CC380E?lang=en

Effective surveillance is essential in order to ensure early identification of TB infection. This 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.

Surveillance is not reliant on testing alone. There are also requirements for:

- reporting of suspicious clinical cases,
- reporting of suspicious lesions at routine inspection in the slaughterhouse and at private post-mortem examinations

Reports will result in investigation, restrictions where necessary and additional testing.

Once infection has been identified in a herd, testing is then increased, in order to identify other infected animals within the herd and to return the herd to TB free status as quickly and effectively as possible. This will reduce the opportunity for further spread of the disease both within and around a herd.

Additional testing is carried out where there is suspicion of infection, either in an individual animal or a herd due to

- a report from the slaughterhouse of lesions that are suspected to be due to infection with *M bovis*
- an animal that has been identified as moving from a farm on which TB is present
- infection in another herd which may have spread to animals in your herd, either due to location or due to management, such as sharing equipment

A report from the slaughterhouse

Sometimes lesions suggestive of TB are found in animals at routine slaughter inspection. These are known as slaughterhouse cases. If such lesions are found, your herd will be placed under movement restrictions pending further investigation and your local APHA office will discuss your testing requirements with you.

Inconclusive Reactors

Inconclusive Reactors (IRs) may be an early indication that you have infection in your herd. They will be restricted and subjected to further tests.

Your local APHA office will send you a letter explaining the restrictions and testing necessary for your particular situation.

Pre-movement testing

Cattle moving from all herds in Wales must be skin tested with negative results within 60 days prior to the movement. This is to reduce the risk of spreading TB from one herd to another.

Information on pre-movement testing and a list of exemptions are available on the Welsh Government website at www.wales.gov.uk/topics/environmentcountryside/ahw/disease/bovinetuberculosis/cattlecontrols/pre-movement-testing/?lang=en

Requirement to test

You will be advised by letter when your herd or a specific animal requires testing and you are obliged to arrange a bovine TB test before the date that this test is due. Your herd will be placed on movement restrictions (TB2) immediately it is overdue for testing as the TB status of your herd will be unknown. The restrictions prevent movements of cattle on or off your premises and will remain in force until your testing has been completed and there is no evidence of TB. Where testing is overdue, licences authorising low risk moves will not be issued (zero tolerance).

We may reduce the compensation payable for any reactors identified in tests which are overdue.

The TB status of your herd

Herds giving negative results at routine surveillance testing are classed as Officially TB Free (OTF).

Suspension: Officially TB Free status Suspended (OTFS)

The OTF status of your herd will be suspended when either

- a tuberculin skin test is completed with positive results (only 1 reactor animal), provided that:
 1. the reactor animal is not a tracing from an OTFW breakdown
 2. the herd has not been OTFW within the past three years (with this time period measured from the date of the releasing test of any previous breakdown
 3. no herd contiguous to the breakdown herd has been OTFW within the previous six months (with this time period measured from the date of the releasing test of any previous breakdown) or
- a tuberculin skin test is completed and inconclusive reactors are identified in a herd that has had its OTF status withdrawn within the previous three years, or
- suspect lesions of TB are detected in animals at routine slaughter inspection, or
- clinical signs of TB are detected in animals, or
- the TB status of the herd is unknown because a routine tuberculin skin test is overdue
- in all cases, your herd will be placed under movement restrictions (TB2) and further testing undertaken

Withdrawal: Officially TB Free status Withdrawn (OTFW)

The OTF status of your herd will be withdrawn when either

- A tuberculin skin tested is completed with positive results in more than 1 animal
- lesions typical of TB are found at the post mortem examination of tuberculin skin or gamma-interferon blood test reactors or IRs, or
- *M. bovis* is confirmed in tissue samples from any animal in the herd, or
- a specific epidemiological risk is identified in your herd

Your herd will be placed under movement restrictions (TB2) and further testing undertaken.

Enforcement of TB policy

Where a movement restriction notice is served either as a result of suspicion or confirmation of TB or as a result of a TB test being overdue, your local authority is informed and sent copies of the notice.

When any other official document is given to you by APHA, such as a notice requiring cleansing and disinfection, or a licence permitting a movement, a copy of it is also sent to your local authority.

Any non-compliance with the conditions of notices, pre-movement testing, licences or TB testing requirements, is a breach of the legislation and the local authority or Welsh Government may consider taking appropriate enforcement action.

A breach of the TB Order may also affect the way in which compensation is calculated for reactors and cattle slaughtered for TB control purposes for a period of six months following the breach. This is dependent on a decision by Welsh Ministers that there has been a breach.

Enforcement action by APHA

A Veterinary Officer from your local office may serve a Veterinary Improvement Notice on the keeper of a bovine animal where they think that the cattle keeper should do something or stop doing something for the purpose of preventing the spread of bovine TB.

Enforcement action by your local authority

Your local authority will follow its enforcement policy and take action as appropriate. This ranges from verbal advice and written warnings to prosecution.

Offences are covered under the Animal Health Act 1981 and penalties include the following:

- compulsory TB testing at the expense of the owner
- written warning
- fine not exceeding £5,000 per offence
- a custodial sentence

A failure to comply with the TB legislation may also be considered an intentional breach of cross compliance and could result in a reduction in payment on a number of schemes, including the Single Payment Scheme (SPS) for your farm.

For more information, see the Welsh Government website www.wales.gov.uk/topics/environmentcountryside/farmingandcountryside/farming/crosscompliance/;jsessionid=B36AD14F7DD8AC4192F41F8B1F7BEE42?lang=en

Section 2 : How do we carry out the TB test?

The Single Intradermal Comparative Cervical Tuberculin (SICCT) test, commonly known as the tuberculin skin test, is the primary bovine TB test used throughout Europe.

Since 2006 the gamma interferon TB blood test has been used alongside the skin test in certain circumstances to help identify animals at an earlier stage of infection.

The tuberculin skin test

The tuberculin skin test is the internationally accepted standard for detection of infection with *M. bovis*, and is considered the best test currently available.

It is designed to test the animal's immune response and involves injecting a small amount of tuberculin (a harmless protein extract of *M. bovis*) into the skin of the animal. In most cattle infected with *M. bovis*, this will cause the animal's immune system to react to the tuberculin and result in a localised allergic reaction (swelling) of the skin a few days after the injection.

Cattle are sometimes infected with other types of mycobacteria which may also cause the animal to react to the test. In order to distinguish between animals infected with *M. bovis* and those infected by other mycobacteria, each animal is also injected with an extract from the organism that can cause TB in birds (avian TB) at the same time. The test is read 72 hours after the injections have been carried out. The size and nature of the reaction to both types of tuberculin ('avian' and 'bovine') are compared to determine whether the test result is considered positive, negative or inconclusive.

The person carrying out your test will be an inspector trained by APHA to carry out the tuberculin skin test. This will either be your own veterinary surgeon, an APHA Veterinary Officer or an APHA Animal Health Officer.

Preparation for the test

APHA will send you a test notification letter giving details of the test that is required.

You are required by law to provide appropriate facilities and assistance to enable an inspector to carry out the test.

A properly planned test, using well designed and constructed handling facilities, will avoid unnecessary stress for you and your cattle, save time and, most importantly, be safer for all involved.

If you have any questions about the test, please contact your local APHA office or veterinary surgeon, for advice.

What animals to test

APHA will send you a letter about your test and will specify which animals need testing.

Identification

Ensure your cattle are correctly identified. This is a legal requirement but will also make it easier and quicker to identify individuals and record skin measurements or blood samples against the correct animal. You must also ensure that all eligible animals have been presented for testing.

Gathering

To avoid delays, your cattle should be gathered in readiness for the test. If it is not possible to test all your eligible cattle on a single day, you must be able to keep them in the same, separate groups until all cattle have been tested.

Records

You may be asked to provide your herd register/cattle movement records and veterinary medicines records, so please have these available for inspection.

Veterinary treatment and other tasks

While you have the cattle gathered you may wish to undertake other management tasks. However these should not interfere with the test and routine veterinary medicines, such as wormers or vaccines, should only be given to animals once they have tested clear.

Previously tested animals

Animals that have recently moved onto your premises may have been skin tested for TB in the previous 60 days. If you can provide evidence of this test you will need to notify the person undertaking the test and these animals will not be tested. If you are unable to provide evidence they will need to be tested at a date that is at least 60 days after the movement on to your herd. If in doubt ask your vet.

Facilities

Handling facilities will be needed for both days of the test to allow safe movement of, access to and good restraint of the animal being tested. They must enable safe and well lit access to read and record the animal's identification tag, to clip the test areas on the neck, to measure the skin thickness of the clipped areas and to inject the tuberculin.

You will need to provide suitable handling facilities for the cattle to be tested, such as a crush and penning system, ideally linked by a securely constructed race.

The facilities should be in good working order and appropriate for the size and breed of cattle to be tested, for example specially adapted if handling Highland or Longhorn cattle. If you do not own a crush or penning system, you should arrange to borrow or hire one. To make sure you do not compromise the biosecurity of your herd, or anyone else's, all equipment should be cleansed and disinfected before and after use.

The Health and Safety Executive has produced an information sheet about suitable handling, restraint and housing of cattle and can be found on their website www.hse.gov.uk/pubns/ais35.pdf

Assistance

By providing sufficient and appropriately experienced help to move groups of cattle into and through the handling facilities, the test will go more quickly with less stress to your animals and less risk of injury to all involved. APHA staff will not routinely be able to help gather or move animals.

If you fail to present your cattle for testing safely and the inspector considers the facilities and assistance provided to be inadequate, the test will not proceed until the issues are resolved. This could mean your test will become overdue and, if this is the case, movement restrictions will be applied.

Procedures for the test

- the animal is identified (by its official ear tag) and its identification recorded
- the hair is clipped to mark two injection sites in the middle of the side of the neck, one above the other
- the thickness of a fold of skin at both sites is measured with callipers and recorded in mm
- tuberculin is injected into the skin; avian tuberculin into the upper site, bovine tuberculin in the lower site
- after 72 hours, the tester returns, re-checks each animal's identity, palpates the skin at the injection sites and re-measures and records any reactions

The gamma interferon blood test for TB

In specific circumstances, the gamma interferon test is used in combination with the skin test to help with early identification and removal of TB infected animals and reduce the risk of further spread of disease.

The tuberculin skin test is the primary test approved by the EU for mass screening of cattle. The gamma interferon test is an additional approved test and is used

based on veterinary advice in herds with severe breakdowns, persistent TB problems or breakdowns in areas where TB incidence is low.

Gamma interferon tests can only be carried out by APHA staff and usually it will be an Animal Health Officer, who will take blood samples from your cattle.

Cattle testing positive to the gamma interferon test will be classed as reactors and will be valued and slaughtered in the same way as skin test reactors.

Further information

Welsh Government

www.wales.gov.uk/topics/environmentcountryside/ahw/disease/bovinetuberculosis/?lang=en

Contact your local APHA office for further practical advice and guidance.

Devolution of animal health and welfare power has resulted in a number of significant differences in the policies regarding bovine TB in Wales, England and Scotland. GOV.UK and the Welsh Government, Defra and Scottish Government websites provide up to date detail on these policies.

If you farm on the border of England and Wales, or England and Scotland, you should be aware that the location of your animals at the time of the test would influence which protocols are relevant to you.



Animal and Plant Health Agency is an executive agency of the Department for Environment, Food and Rural Affairs and also works on behalf of the Scottish Government, Welsh Government and the Food Standards Agency