



Llywodraeth Cymru
Welsh Government

Protect your herd from TB

Explanatory Guidance
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Background

- TB (Tuberculosis) is an infectious disease caused by the bacterium *Mycobacterium bovis* (M. bovis). It is mainly a respiratory disease caught by breathing in droplets of sputum (mucus coughed up from the lower airways) containing M bovis. The bacterium can also enter the body through ingestion and infection can be present in muck and slurry, milk and sometimes urine.
- As well as cattle, M.bovis can infect and cause TB in a wide range of mammals including badgers, deer, goats, pigs, camelids, dogs and cats.
- M.bovis can affect humans as well as animals but the risk to public health is kept low through regular testing of cattle, milk pasteurisation and routine meat inspection at abattoirs.
- Whilst the Welsh Government implements controls to stop disease spreading and to protect both public and animal health, there are many things that you can do to reduce the risk that TB poses to your herd.
- 'Protect your herd from TB' contains five main recommendations on the practical measures that you can take to reduce the risk of introducing TB on to your farm.
- The importance of these measures will vary between herds so you should consult your vet to make sure that the right measures are put in place for your herd.
- It may not be practical to apply all of the measures but taking action to limit opportunities for disease to spread will help to protect your own farm and other farms.
- If you experience a TB breakdown you are eligible for a free Cymorth TB visit from your vet. This will include tailored biosecurity advice and advice on how to clear the breakdown up as quickly as possible.

More information about TB is available at www.gov.wales/bovinetb.

Recommendations for reducing the risk of introducing bovine TB

1. Stop infected cattle entering the herd

Why do this?

- 1.1 Cattle spreading the disease through movements are one of the main causes of the spread of TB.
- 1.2 TB can be passed between cattle and so infected cattle entering your can be a source of infection even if they have recently tested negative. Introducing any new animal (for example purchases, including imported animals, or hire bulls) or re-introducing your own stock to your herd (for example following a show or returning unsold from market) can be a potential disease risk.

How to reduce your risk?

Ask for TB history information before you buy new cattle

- 1.3 Seek advice about animal health from your vet before purchasing cattle.
- 1.4 Looking at www.ibtb.co.uk will give you a better understanding of the disease situation in the area from which you are sourcing cattle. Ask for the TB history of the herd you buy cattle from to assess the level of risk and take action to manage it. The TB passport sticker is an easy way to identify when cattle last had a clear test (if purchased in Wales).

As a minimum, you should ask for:

- i) **Date of the animal's pre-movement TB test:** Not all animals require pre-movement tests but those that do should have been tested in the 60 days before their sale. Pre-movement testing reduces the risk of undetected infected cattle spreading disease.

More details of the pre-movement and post-movement testing requirements of cattle in Great Britain are available at: www.gov.uk/government/publications/pre-movement-and-post-movement-tb-testing-of-cattle-in-great-britain

- ii) **Date of the seller's last routine herd test:** Knowing this date may offer additional reassurance if the herd has recently tested negative for TB or it may prompt you to consider carrying out isolation and post-movement testing before introducing the animal into your herd.

If the last test was some time ago or you are uncertain about the testing history e.g. if the animal was not bred on the holding from which it is being sold, you should consider isolating the animal and ask your vet to conduct a post-movement test (see 1.5 below for further information).

- iii) **Date the herd achieved Official TB Free (OTF) status:** All animals offered for sale should have tested negative for TB and come from an Officially TB Free (OTF) herd. However, the length of time that the herd of origin has been OTF is a good indication of the risk level of cattle from that herd.

Post-movement testing cattle entering the herd

1.5 Infected cattle do not usually shows clinical signs of TB and may appear to look healthy. Post-movement testing is another line of defence to identify infected cattle before introducing them in to your herd.

1.6 Post-movement testing is recommended to reduce the risk of TB for animals moving from a high TB area or from a herd that has recently had TB.

Post-movement testing should not be carried out within 60 days of a pre-movement skin test. This is because infected cattle may not react to the skin test if it is repeated too soon i.e. they become desensitised. This desensitisation will subside after 60 days and so the animal can then be post-movement tested.

It is recommended that post-movement testing is carried out 60 to 120 days after the animal arrives on your farm. If possible animals should be isolated until the test results are known to reduce the risk of them spreading TB.

- 1.7 Tests for TB are not perfect and a negative result does not guarantee that the animal will be free from TB. This is because:
- the animal may be at a very early stage of infection – too early to be detected by a test
 - the animal may have picked up infection after it was tested
 - the tests are better at detecting infection when used on a herd basis rather than on individuals or small groups.
- 1.8 Therefore, it is worthwhile carrying out a post-movement test even if the animal has passed a pre-movement test as it gives another opportunity to pick up any undetected infection or animals that were infected following the test.
- 1.9 The limitations of the TB test create a particular risk in relation to bull hire. As bulls may visit several herds each year they pose a high risk of spreading TB. It is much less of a risk to purchase your own bull or to use Artificial Insemination (AI).

Isolate all higher-risk cattle before they enter the herd

- 1.10 When cattle enter your farm, it is recommended that you isolate them from other cattle in your herd in case they are incubating any disease and to give you time to test them.
- 1.11 If you are buying in cattle from a herd of higher TB risk status (based on your assessment of the three factors at 1.4 above), they should always be isolated.
- The period of isolation should be at least 60 days** so that a post-movement test can be carried out before introducing them into your herd.
- 1.12 These recommendations apply to all cattle entering the herd, including newly purchased stock, hired bulls and cattle that are already under your ownership that return to the farm e.g. from shows, markets and from other premises.

The risk is greater for purchased stock and hired bulls than for animals that have been off the farm for a short time. Nevertheless it is important to assume that even short periods off farm can potentially give opportunity for animals to become infected. Where possible, breed your own replacements and/or use AI.

- 1.13 The practicality of isolating cattle will depend upon a number of factors, including the number of animals purchased, their purpose (management stage) within the herd and the availability of suitable isolation facilities.
- 1.14 You should discuss with your vet what options could be appropriate for isolation on your farm.

2. Manage cattle feed and water

Why do this?

- 2.1 Feed and water are ways TB can spread between cattle, from badgers to cattle or cattle to badgers. If feed is not managed carefully, it can also attract badgers to your farm. Infected badgers can excrete *M. bovis* (the bacterium that causes TB) through various routes: sputum, urine, faeces and discharges from bite wounds. This can result in contamination of feed and the area around it that can act as a source of indirect spread to cattle.

How to reduce your risk?

Badger-proof feed stores, troughs and mineral licks

Minimise access of badgers to feed stores

- 2.2 Feed store walls and doors should be secure and doors kept closed (especially at night) following the guidance for buildings at 5.5. If you cannot stop visits to feed stores, consider other means of storing feed, for example in secure bins or silos.

2.3 Maize, whole-crop and grass silage clamps should be well covered and if possible, the face protected by electric fencing or other exclusion measures. If using electric fencing, strands of wire should be at 10cm, 15cm and 20cm above the ground (with an optional fourth strand at 30cm).

Minimise access of badgers to feed troughs and mineral licks

2.4 Badgers are likely to be attracted to feed troughs and mineral licks. Accessible feeds may increase the likelihood of badgers coming into contact with cattle, either directly or indirectly through excretions.

Although it is difficult to completely exclude badgers from feed troughs and mineral licks, particularly when they are used at pasture, there are measures you can take to make these less attractive and more difficult for badgers to access. These include:

- i. When feeding cattle, only use the amount that is needed for the day, so that there won't be any left for badgers at night.
- ii. Cleaning troughs regularly to prevent residues building up that may attract badgers.
- ii. Raising feed troughs as high as possible, while still allowing access for cattle. The troughs should be raised at least 90 cm off the ground, have sheer sides and no footholds to make it difficult for badgers to gain access. Some troughs have rollers incorporated around the edges to prevent badger access.
- iv. Use holders to raise mineral licks as high as possible. These can be free standing with sheer sides and no footholds, attached to gates or suspended from trees.

Don't put feed on the ground at pasture and clean up spillages

2.5 Placing feed on the ground at pasture is an open invitation to wildlife and should be avoided as a method of feeding cattle. It is good practice to also keep your farm free from spilt and waste feed.

Use clean, fresh water and badger-proof water troughs

- 2.6 Non-mains water sources may be potentially contaminated by infected livestock or badgers. Mains or other clean, fresh water should be used wherever possible and water troughs should be cleaned regularly.
- 2.7 Stagnant ponds and other areas where wildlife may drink should be fenced off.
- 2.8 Water troughs should be inaccessible to badgers, with access for drinking at least 90cm from the ground, be sheer walled, and sloping outwards from the bottom. They should not be shared with neighbouring herds.

Only feed waste milk to calves if it has been boiled or pasteurised

- 2.9 Troughs should be regularly cleansed and disinfected to minimise the risk of cattle being exposed to contaminated water. Disinfectant used must be on the list of Disinfectants Approved for use in England, Scotland and Wales under Tuberculosis Orders at the approved dilution rate & must be either food safe or effectively washed off surfaces with copious amounts of water: www.disinfectants.defra.gov.uk
- 2.10 Do not feed milk from TB reactors or inconclusive reactors to calves or other livestock unless it has been suitably heat treated e.g. by boiling or pasteurisation, to kill any infection that might be present.
- 2.11 Raw milk cannot legally be sourced directly from another dairy herd for feeding to farm animals. Farms on the milk register can source milk or milk products from registered milk processing establishments under the Animal By-Products (Enforcement) Wales Regulations 2014. However, it is not advisable to source milk or milk products, which have been rejected for human consumption, for feeding to calves on your farm. Further information and guidance is available on the Welsh Government website: www.gov.wales/topics/environmentcountryside

3. Reduce risk from neighbouring herds

Why do this?

- 3.1 Contact with infected cattle in neighbouring herds is another potential source of infection. Infection from neighbouring herds can occur through direct contact (e.g. nose to nose) or indirect contact (e.g. contaminated equipment, sharing of water troughs over a boundary, or aerosol spread during manure or slurry spreading).

How to reduce your risk

Check local TB breakdown data online

- 3.2 Information on the location of ongoing breakdowns and breakdowns resolved in the last five years in Wales and England is available on the information bovine TB website: www.ibtb.co.uk. This will give you a better understanding of the disease situation in your area and the local disease threat to your herd.

Put in place effective barriers between neighbouring herds

- 3.3
- (i) It is important to maintain perimeter fencing that prevents direct contact with neighbouring cattle as well as preventing cattle straying and mixing with stock from other herds.
 - (ii) Fences between farms must be suitably stock-proof and the boundary should be as wide as is practically possible but at least three metres to prevent nose-to-nose contact. This is particularly important for farms with multiple land parcels as they have more neighbours and therefore are at increased risk of being exposed to infection. Where contact could occur between cattle on neighbouring farms (gates, troughs and other gaps) a temporary electric fence can form a suitable barrier to prevent opportunities for contact and possible disease spread.
 - (iii) If you are neighbouring a farm with TB you should avoid grazing cattle in fields that are adjacent to fields that have livestock in at the same time or where manure or slurry is being spread.

Avoid sharing equipment or vehicles with other farms

- 3.4 Indirect spread can occur via equipment that has been contaminated with *M. bovis*. Some pieces of equipment carry a greater risk than others - equipment for handling and spreading manure or for handling and transporting livestock are likely to pose a higher risk than equipment that has had no contact with animals or their excretions.
- 3.5 If sharing is unavoidable then it is important for equipment to be properly cleansed and disinfected. You should thoroughly clean all the internal and external surfaces so that there is no dirt visible before disinfection, as disinfectants are less effective when applied to dirty surfaces. The disinfectant used must be on the list of Disinfectants Approved for use in England, Scotland and Wales under Tuberculosis Orders at the approved dilution rate: www.disinfectants.defra.gov.uk
- 3.6 The same precautions should also be taken for high-risk vehicles (e.g. carcase collection vehicles and livestock lorries) and personnel that enter the farm. Cleaning equipment and disinfectant should be available at farm, or livestock area entrances and visitors should wear clean outer clothing, appropriate footwear and be requested through signage to cleanse and disinfect before entry.

Avoid sharing cattle grazing with other herds

- 3.7 Sharing grazing land with livestock owned by other people is particularly risky, particularly in an area with known high levels of TB. Uninfected cattle may come into close direct contact with potentially infected livestock, or indirectly with TB infected material, at shared watering and feeding points or during grazing.

4. Minimise infection from cattle manure

Why do this?

- 4.1 Infected cattle can excrete *M. bovis* in their dung. It can survive in faeces and may remain infective on pasture for up to six months in winter but only one for two months in the summer, depending on the temperature and the concentration of pathogens in the faeces.
- 4.2 *M. bovis* may survive in stored slurry for up to 6 months. However, in cattle manure with low moisture levels and a high straw content, which is stacked in a heap, *M. bovis* may not survive beyond 30 days because of the heat levels and composting that takes place. This is less likely to happen in wetter manure or in slurry.
- 4.3 In general, cattle avoid grazing close to the dung pats of other cattle, preferring to graze mature sward fertilized manure/slurry. There are also things that you can do to minimise the risk of manure/ slurry being a source of TB for your cattle.

How to reduce your risk

Store manure for a long period before spreading on your farm

- 4.4 Store slurry and cattle manure with high moisture levels **for at least six months** before spreading it on pasture so that few, if any, *M. bovis* bacteria will be present at the time of spreading. Low moisture content manure stacked in a heap can be spread after 30 days. Slurry and manure should be stored in a secure way that is inaccessible to livestock and wild animals.

Only spread manure on arable land or pasture that is not going to be grazed by cattle for at least two months

- 4.5 If the storage measures above cannot be observed, then you should only spread manure / slurry on arable land or pasture that is not going to be grazed by cattle for at least two months. **The two month no graze period should also apply to grass or other crops intended for feeding.** These may also be useful additional measures to longer term storage.

Minimise aerosols and contamination of roadways when spreading

- 4.6 Aerosols of manure may help spread *M. bovis* bacteria and the inhalation of the organism is particularly important in the way the disease spreads. Ideally, spreading methods should allow for controlled application and spreading should not be carried out in windy weather or too close to boundaries with fields where cattle are present. If the spreading method generates aerosols that cannot be controlled then it increases the risk of spreading infection into fields that contain cattle.

Don't spread manure from other farms

- 4.7 The TB status of other farms is not always known at the time that manure is collected. Purchasing manure from other farms increases the risk of bringing in infections from those farms, including *M. bovis*.
- 4.8 More advice on what you can do to help reduce the risk of TB infection in your herds is available from the Animal and Plant Health Agency (APHA).

Clean farm buildings

- 4.9 The period immediately after your cattle are let out, following a prolonged period of housing, is a perfect opportunity to fully clean out and disinfect the buildings to make sure that any infections that are present do not survive until cattle are re-housed.

5. Restrict contact between badgers and cattle

Why do this?

- 5.1 Infected badgers may excrete *M. bovis* in sputum, urine, faeces and discharges from bite wounds. They can spread TB to cattle through direct contact (e.g. nose-to-nose) or indirect contact with material (e.g. feed, pasture or water sources) contaminated by their excretions.

- 5.2 In high TB areas, badgers are a potential source of infection. It is therefore important in these areas to minimise the risk of badgers spreading disease to cattle. In some places, it is also important to limit exposure of cattle to other wildlife which could potentially spread infection e.g. deer, feral wild boar.
- 5.3 Although the level of infection in badgers in low and intermediate TB areas is low, meaning they do not represent an important source of infection for cattle, it is still important to minimise the opportunity for contact between badgers and cattle. This is not only to prevent infection spreading from badgers to cattle but also to prevent TB from cattle becoming established in the badger population.

How to reduce your risk

Find out if badgers visit your farm

- 5.4 Familiarise yourself with signs of badger activity. It may be helpful to mark the location of badger setts, latrines and runs on a map. This will help to guide your decisions on grazing and selecting the most appropriate measures to reduce contacts between your cattle and badgers. Surveillance cameras can also be used to monitor badger activity, particularly around farm buildings.

Introduce barriers to restrict badger access to cattle

- 5.5 Open feed sources are an easy meal. Badgers visits to farm buildings (especially feed stores) can be frequent and even if you do not see them, they may still occur. To reduce the risk of these visits take the following steps to limit access to your buildings:
- The sides of buildings, doors and gates should be of a smooth, solid construction to prevent badgers from climbing and at least 1.5 metres high. Various materials, such as solid sheets of metal or plywood can be used to achieve this.
 - Gaps should be no more than 7.5 cm to prevent badgers from gaining access. This includes gaps at both the bottom and sides of gates and doors.

- Make sure the floor surface underneath doors is hard (i.e. concrete or stone) as determined badgers will dig under them. Gates and doors should be kept closed when not in use and especially at night. This applies to all gates and doors to buildings that house livestock, bedding materials and feed.
- 5.6 Strands of electric fencing can be used to exclude badgers from farm buildings. Electric fencing wire should be at 10, 15, 20 and 30 cm above the ground and must be kept free of vegetation. Alternatively, permanent badger proof fencing is available and can also be installed. In some situations it may be more practical to fence, or wall off, the entire yard.
- 5.7 Your own knowledge and experience of your farm may suggest that specific pastures are particularly risky in terms of spreading TB to cattle, so grazing on these should be avoided if at all possible. An alternative may be to graze these areas with sheep instead.
- 5.8 Intensive / extended grazing may encourage cattle to feed at the edge of the field where there is a greater risk of contamination from badger faeces and urine at badger latrines. Also avoid allowing cattle access to woodland.
- 5.9 Wherever possible, prevent access to shared watercourses such as ponds or streams and provide piped water to troughs instead.

Limit access of cattle to badger latrines and setts

- 5.10 Fence cattle away from badger setts and latrines, with either permanent fencing or temporary electric fencing but do not obstruct badgers from accessing their setts. When silaging, avoid mowing these areas as they may contain infectious material. The location of badger latrines may change over time and the fencing may need to be moved. If possible, prevent cattle from grazing fields with a high level of badger activity.
- 5.11 As badger latrines are frequently located along field edges, the best option may be to prevent cattle grazing at fields boundaries altogether e.g. by use of temporary electric fencing.

Work with your vet to implement health planning for your herd and, if you are in any doubt about the disease risk, get advice from your vet. Further information is also available at:

Animal and Plant Health Agency

www.gov.uk/government/organisations/animal-and-plant-health-agency

Bicton college biosecurity project

www.southwest-tbadvice.co.uk/biosecurity/bicton-college-biosecurity-project

Biosecurity

www.gov.wales/topics/environmentcountryside/ahw/biosecurity

Cattle Health Certification Standard (CHeCS)

www.checs.co.uk

Herdsure Cattle Health Improvement Service

www.ahvla.defra.gov.uk/apha-scientific/services/herdsure/index.htm

Information bovine TB

www.ibTB.co.uk

My Healthy Herd

www.myhealthyherd.co.uk

TB Advantage

www.dairy.ahdb.org.uk/technical-information/breeding-genetics/tb-advantage

TB Hub

www.tbhub.co.uk

Video guides

www.tbhub.co.uk/biosecurity/video-guides