

Protect your herd from TB - explanatory guidance

- Bovine TB (tuberculosis) is a chronic, infectious disease caused by *Mycobacterium bovis* (*M. bovis*). It is mainly, but not exclusively, a respiratory disease caught by breathing in droplets of sputum (mucus coughed up from the lower airways) containing *M. bovis* for example through close contact with infected cattle and wildlife. Infection is also possible through other routes, for example eating feed contaminated with sputum, milk, urine, faeces or pus from infectious animals.
- 'Protect your herd from TB' contains five main recommendations on the practical measures that you can take to reduce the risk of introducing bovine TB on to your farm. The importance of these measures may vary between herds and TB risk areas (i.e. High Risk, Low Risk and Edge Areas in England) so consider consulting your private vet to ensure 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 transmission will help to protect your own farm and other farms.
- Please note that whilst the majority of this guidance applies to all cattle farms across England and Wales, there is some reference to the TB risk areas in England. >[Click here](#) for more information about bovine TB in Wales.

1. Restrict contact between badgers and cattle

Why do this?

1.1 Infected badgers may excrete *M. bovis* in sputum, urine, faeces and discharges from bite wounds. Transmission to cattle may occur via direct contact with infected badgers (e.g. nose-to-nose) or indirect contact with material (e.g. feed or water sources) contaminated by badger excretions.

1.2 In the High Risk Area (HRA), there is a recognised reservoir of *M. bovis* infection in badgers. There is also evidence that some badger populations in the Edge Area are infected with *M. bovis*. It is therefore important in these areas to minimise the risk of infection being transmitted from badgers to cattle. In some places, it is also important to limit exposure of cattle to other wildlife which potentially could transmit infection (e.g. deer, feral wild boar), although these are not currently major reservoir species in Great Britain.

1.3 Although the prevalence of infection in badgers in the Low Risk Area (LRA) is probably 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 in the LRA. This is to prevent new infection becoming established in the badger population, for example through the disease passing from infected purchased cattle to local badgers, and then spreading within the badger population.

How to reduce your risk

Find out if badgers visit your farm

1.4 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 can be done gradually as you farm and will help to guide your decisions on grazing and selecting the most appropriate measures to reduce opportunities for contact between your cattle and badgers. In addition to surveying, wildlife surveillance cameras can be used to monitor badger activity, particularly around farm buildings.

Introduce barriers to restrict badger access to cattle

1.5 Open feed sources are an easy meal. Badger 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 you can take these 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.
- Ensure that there are hard surfaces under exclusion measures e.g. concrete, if not badgers will dig under them. Gates and doors should be kept closed, especially at night. These measures apply to buildings that house livestock, bedding materials and feed.

>[Click here for more information about biosecurity for farm buildings](#)

>[Click here for case studies demonstrating practical use of biosecurity measures on farm](#)

1.6 Permanent electric fencing can be used to exclude badgers from farm buildings, or in some cases restrict access of badgers to grazing pastures. Grazing will always carry a potential risk of transmission where infectious badgers are present. With electric fencing, the strands of wire should be at 10, 15, 20 and 30 cm above the ground. Any fencing should not obstruct badgers from having access to their setts.

1.7 When considering the installation of permanent badger proof fencing, you will need to think about whether this will have any impact on your ability to claim BPS (Basic Payment Scheme) payments on that area.

>[Click here for BPS guidance on the TB Hub](#).

1.8 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 less susceptible stock in these areas, such as sheep.

1.9 You may consider installing exclusion measures to prevent infection from cattle being transmitted to wildlife e.g. in areas where effluent or waste water drains from livestock and where manure is stacked or stored. This will reduce the risk of creating wildlife reservoirs of TB in your area with the potential for spreading disease back to your herd or to other herds in the area.

1.10 If dead badgers are found on the farm, please contact your local authority for advice on disposal.

Limit access of cattle to badger latrines and setts

1.11 Fence cattle away from badger setts and latrines but do not obstruct badgers from access to their setts. When silaging, avoid mowing these areas as they may contain infectious material. The site 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.

1.12 As badger latrines are frequently located along linear landscape features such as field edges, the best option may be to prevent cattle grazing at fields boundaries altogether e.g. by use of temporary electric fencing.

2. Manage cattle feed and water

Why do this?

2.1 Feed, if not managed carefully, can attract wildlife (including badgers) to your farm. Infected badgers can excrete *M. bovis* 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 transmission 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 1.5 above. If you cannot stop visits to feed stores, consider other means of storing feed, for example in secure bins or silos.

2.3 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 10, 15, 20 and 30 cm above the ground.

>[Click here for bovine TB biosecurity information sheets](#)

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 feed 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 residue build-up that may attract badgers.
- iii) Raising feed troughs as high as possible while still allowing access for cattle. The troughs should have sheer sides and no footholds to make it difficult for badgers to gain access.
- iv) Using 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. They can be 'home-made' or are available to buy.

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 badgers 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.

>[Click here for more information about biosecurity at pasture](#)

Use clean, fresh water and badger-proof water troughs

2.6 Non-mains water sources may be potentially contaminated by infected livestock or badgers, if these are present in the area. This risk is likely to be greater in the HRA. Mains water, or other clean, fresh water, should be used wherever possible.

2.7 Stagnant ponds and other areas where wildlife may drink should be fenced off.

2.8 As badgers can gain access to water troughs, consider similar taking precautions as described for feed troughs to prevent his happening. Troughs should be regularly cleansed and disinfected to minimise the risk of cattle being exposed to contaminated water.

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

2.9 Infected cows can excrete *M. bovis* in milk. As well as being a source of infection for people, calves fed milk from infected cows are also at risk of developing bovine TB, and severe outbreaks in calves have occurred through this transmission route.

The risk will depend on your herd's TB status and the infection status of individual cows used to supply milk for calves. Feeding waste milk to calves also increases the spread of other diseases such as Johne's disease.

2.10 It is not recommended to feed milk from TB reactors or inconclusive reactors to calves or other livestock. If it is necessary to feed your waste milk, then it should first be boiled or pasteurised to kill any *M. bovis* that might be present.

2.11 Never feed milk from another herd as infected cows may be present, even if the herd is officially TB free. The feeding of milk is controlled by the Animal By-Products Regulations.

>[Click here for further information](#)

3. Stop infected cattle entering the herd

Why do this?

3.1 Bovine TB can be passed between cattle therefore infected cattle entering your herd can be a source of infection. Introducing any new animal e.g. purchases (including imported animals) or hire bulls, or re-introducing your own stock to your herd (e.g. following a show or returning unsold from market) can be a potential disease risk.

3.2 In recent years, it has been demonstrated that cattle to cattle transmission resulting from movement is one of the main contributors to the spread of TB. For example, around 50% of breakdowns in the LRA are due to purchase of infected cattle. In the HRA, given that 84% of non-slaughter movements of cattle are to other holdings within the HRA, it must be assumed that movements are also a significant contributor to TB spread in the HRA.

How to reduce your risk?

Ask for TB history information before you buy new cattle

3.3 Try to obtain a full TB history of herds from which you purchase cattle so that you can assess the level of risk and take action to manage it. 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 reduced the risk of undetected infected cattle spreading disease.

<[Click here for details of the legal requirements](#)

ii) Date of the seller's last routine herd test: Knowing this date may offer additional reassurance if the herd has tested negative for TB recently 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 below for further information).

iii) Date the herd achieved Officially TB Free (OTF) status: All animals offered for sale should have tested negative for TB and come from an OTF herd. However, the length of time that the herd of origin has been OTF can be an indication of the level of TB risk of sourcing cattle from that herd. The longer a herd has been free of TB restrictions the lower the risk and conversely a herd that has recently come off restrictions is likely to be a higher risk.

Post-movement test cattle entering the herd

3.4 Infected cattle do not usually show clinical signs of TB and will look healthy. Post-movement testing is another line of defence to detect infected cattle prior to introducing them in to your herd, and reduce the risk of them spreading TB to your other cattle.

3.5 Post-movement testing was introduced in England on 6 April 2016. Herd owners in the LRA of England must arrange and pay for post-movement tests for cattle bought from herds in annual (or more frequent) surveillance testing areas of England and Wales. Post-movement testing is not required for cattle slaughtered within 120 days of arriving in the LRA, or that are moved to a Licensed Finishing Unit approved by APHA (unless the cattle have had no pre-movement test). A complete list of exemptions is available in the guidance on pre-movement and post-movement testing of cattle in Great Britain.

3.6 Post-movement tests must be completed between 60 and 120 days after an animal has joined an LRA herd. Government-funded TB tests scheduled to take place within the 60-120 day post-movement testing window can be considered valid post-movement tests. If possible animals should be isolated until the test results are known.

3.7 Tests for TB are not perfect and a negative result does not guarantee that the animal will be free from TB. This is because:

- Approximately one in four infected cattle may be missed by the tuberculin skin test
- The tests are more effective at detecting infections when used on a herd basis rather than on individuals or small groups

3.8 Therefore, it is worthwhile carrying out post-movement testing even if the animals have passed a pre-movement test as it gives another opportunity to pick up any undetected infection or animals infected with *M. bovis* following the test e.g. during transit.

3.9 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 and it would be preferable not to use hire bulls at all.

Isolate all higher-risk cattle before they enter the herd

3.9 When cattle enter your farm, it is recommended to isolate them from other cattle in the herd to ensure that they are not incubating any disease (not just TB) and to give you time to test.

3.10 If you are buying in cattle from a herd of higher TB risk status (based on your assessment of the three factors at 3.3 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 the herd.

3.11 These recommendations apply to all cattle entering the herd, including newly purchased stock, hired bulls, and cattle that are already under your ownership but that return from being away, 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 spells off farm can potentially give opportunity for infection to be acquired.

3.12 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.

3.13 Discuss with your vet what options could be appropriate for isolation on your farm.

>[Click here for further advice on isolation of cattle from AHDB](#)

4. Reduce risk from neighbouring herds

Why do this?

4.1 Contact with infected cattle in neighbouring herds is another potential source of infection. Infection from neighbouring herds can occur via direct contact (e.g. nose to nose) or indirect contact (e.g. via contaminated equipment or aerosol spread during manure or slurry spreading).

How to reduce your risk

Check local TB breakdown data online

4.2 Information on the location of ongoing breakdowns and breakdowns resolved in the last five years is available on a web-based interactive map called [ibTB](#). Awareness of local TB breakdowns will help you to better understand the nature and scale of the disease threat to your herd.

4.3 Defra also publish quarterly regional reports for the LRA and Edge Area of England describing the most likely causes of TB breakdowns and providing an overview of the scale of the TB problem.

>[Click here for the reports](#)

Put in place effective barriers between neighbouring herds

4.4 It is important to maintain perimeter fencing that prevents direct contact with neighbouring cattle, as well as straying and mixing with stock from other herds e.g. double fencing. The boundary should be as wide as is practically possible but at least three metres. 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. If possible, 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

4.5 Indirect transmission can occur via equipment that has been contaminated with *M. bovis* and other pathogens. Some pieces of equipment carry a greater risk than others - equipment for handling and spreading manure, or for handling and transporting livestock, is likely to pose a higher risk than equipment that has had no contact with animals or their excretions.

4.6 If sharing is unavoidable, then it is important for equipment to be properly cleansed and disinfected, according to the risk posed by the equipment before entering the farm. All debris should be visibly removed before disinfection, as disinfectants are less effective when applied to dirty surfaces.

4.7 The same precautions should also be taken for high-risk vehicles (e.g. carcass collection vehicles and livestock lorries) and personnel that enter the farm. Cleaning equipment and disinfectant should be available at entrances and visitors should use them.

4.8 A [Defra-approved disinfectant](#) at the appropriate dilution rate for the control of bovine TB should be used.

Avoid sharing cattle grazing with other herds

4.9 Sharing grazing land with livestock owned by other people is particularly risky, particularly in the HRA, where potentially infected livestock may come into close contact with uninfected cattle through direct contact or indirectly at shared watering and feeding points.

5. Minimise infection from cattle manure

Why do this?

5.1 Infected cattle can excrete *M. bovis* in their dung. Cattle manure/slurry may therefore be contaminated with *M. bovis*. Measures can be taken to minimise the risk of manure being a source of TB for your cattle.

How to reduce your risk

Store manure for a long period before spreading on your farm

5.2 Research has shown that *M. bovis* can survive in manure for up to six months. With this in mind, it is recommended to store manure for at least six months, before spreading on pasture so that few, if any, *M. bovis* bacteria will be present at the time of spreading. Manure should be stored in a secure structure that is inaccessible to domestic and wild animals.

>[Click here for more information about survival of *M. bovis* in the environment](#)

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

5.3 This minimises the risk of infecting cattle from manure even further, in addition to the lengthy storage period recommended above, by avoiding direct contact of contaminated manure with cattle. The two month waiting period should also apply to grass if it is to be cut for forage.

Minimise aerosols and contamination of roadways when spreading

5.4 Aerosols of manure may promote spread of *M. bovis* bacteria. Ideally spreading methods should allow for controlled application and spreading should not be carried out in windy weather. 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

5.5 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 purchasing infectious agents from those farms, including *M. bovis*.

5.6 [Click here for further guidance on spreading manure](#)

Please note that the advice given in this document does not necessarily take into account the biosecurity requirements for specific situations, e.g. Approved Finishing Units or CHeCS accreditation. The requirements of these specific circumstances should also be taken into consideration where appropriate.