



Bovine TB

Technical Document

Incorporating rules for Cattle Health Schemes
on Bovine Tuberculosis (TB) programmes:
CHECS TB Entry Level Membership
CHECS TB Herd Accreditation

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1. About Bovine Tuberculosis (TB)

Bovine Tuberculosis is a chronic, contagious, primarily respiratory condition that affects cattle and other animals resulting in progressive wasting and, ultimately, death. It is caused by the bacterium *Mycobacterium bovis*.

M. bovis is shed in bodily secretions, especially respiratory secretions. It can infect a number of species. The main wildlife reservoir in the UK is the badger.

M. bovis is infectious to humans and caused a significant number of deaths in the UK prior to the introduction of pasteurisation of milk and routine meat inspection procedures.

The single intradermal comparative cervical tuberculin (SICCT or 'skin') test carried out on livestock is very valuable in diagnosing and managing TB on a herd basis. It is not, however, perfect, especially with respect to sensitivity. This means that a proportion of truly infected animals may give a negative test result (false negative). A proportion of skin tests carried out on individual animals prior to sale may therefore give a false negative result and cannot be absolutely relied upon.

The skin test is good at detecting cattle herds infected with TB. If a herd repeatedly tests negative for the disease the herd can be categorised as likely to be free of TB. Research has shown that a herd has to have tested clear for 10 years to provide the highest level of confidence that latent (hidden) TB infection is not present.

Because of the difficulties caused by false negative test results and the bacterium being maintained within a wildlife reservoir, eradication of TB is more difficult in comparison to some of the other diseases covered by the cattle health schemes. Herds in parts of the country where *M. bovis* infection is present in badgers may be exposed to a higher background level of 'environmental' infection compared with herds in non-endemic TB areas where risk arises primarily from cattle movements and residual, unidentified infection.

A simple test and cull programme is not sufficient to maintain freedom from TB infection. This must be supplemented by measures to mitigate the risk of stock with undisclosed infection being introduced into herds and implementing measures to limit contact with infected badgers.

Vaccination programmes for both badgers and cattle have a role to play in disease control. There is a licensed TB vaccine for use in badgers (BadgerBCG™) but administration requires cage trapping and dosing by licensed individuals. At the time of writing there is no licensed cattle TB vaccine although field trials began in 2021 on the Cattle BCG vaccine and DIVA skin test. BCG-based vaccines do not provide complete protection against infection.

Please see www.tbhub.co.uk for more information about TB.

2. About the CHECS TB programmes

The CHECS TB programmes aim to recognise and reward cattle farmers who take a proactive approach to controlling TB. CHECS TB Herd Accreditation has been available since 2016. CHECS TB Entry Level Membership was launched in 2021. Both are available from CHECS-licensed health scheme providers and operate on the principle of adopting good biosecurity measures and working with the herd veterinary surgeon to minimise the risk of TB entering the herd.

Good biosecurity is central to all CHECS disease reduction programmes, as is a planned approach to disease reduction in consultation with the herd vet. As well as reducing risk of infection, the programmes present risk-based trading opportunities as they signify that certain standards of biosecurity are being attained. In particular, CHECS TB Herd Accreditation offers benefits for farmers with a low risk of TB who farm in regions with a high risk of the disease, or those who wish to minimise exposure from bought-in animals.

An epidemiological analysis¹ of 2019 TB data and historical trends by APHA found that 11% of breakdowns in the High Risk Area of England could be attributed to cattle movements; in the Edge Area this was 21%, and in the Low Risk Area, 38%. Similarly, in Wales the majority of TB breakdowns in the Low TB area are as a result of undetected infection brought in through cattle movements. Outside of low risk areas for TB, indirect contact between cattle and badgers is important and is likely to be the main route for infection. If indirect routes of infection can be identified and addressed, there is more opportunity to prevent infection entering the herd through targeted biosecurity.

CHECS TB Herd Accreditation is based on the findings of research² by Amie Adkins in 2015 on the risk of a herd contracting TB. The research showed that after a herd breakdown, the longer a herd went without a further breakdown, the lower the risk they had of being infected with TB, up until year 10. After this point, the time since the last breakdown had no impact on likelihood of another breakdown.

CHECS TB Entry Level Membership is founded on a concept raised in the Bovine TB Strategy Review published in October 2018³ authored by a team led by Sir Charles Godfray and commissioned by the Secretary of State to Defra. This report first used the term 'no regrets' biosecurity measures, meaning a range of relatively cheap actions a farmer can take to separate cattle from badgers, cattle from other cattle on neighbouring holdings and potentially infected from uninfected cattle. These interventions rely on common sense and require the application of some time and effort but not a large financial investment. Implementing these 'no regrets' biosecurity measures should reduce the risk of a TB breakdown. Please visit the CHECS website www.checs.co.uk for an extensive range of answers to frequently asked questions.

¹ Bovine TB epidemiology and surveillance in Great Britain, 2019
<https://www.gov.uk/government/publications/bovine-tb-epidemiology-and-surveillance-in-great-britain-2019>

² Development of risk-based trading farm scoring system to assist with the control of bovine tuberculosis in cattle in England & Wales (2016)
<https://www.checs.co.uk/wp-content/uploads/2016/11/Amie-Adkins-bTB-research.pdf>

³ Bovine TB Strategy Review, October 2018.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/756942/tb-review-final-report-corrected.pdf

3. CHECS TB Entry Level Membership

3.1 Objective

CHECS TB Entry Level Membership works on the principle that implementing a series of easily achievable biosecurity measures can reduce the risk of a TB breakdown. Although TB risk can never be entirely eliminated, a British Cattle Veterinary Association (BCVA) TB-Accredited Veterinary Advisor (BATVA)/ Cymorth Veterinary Advisor (OCQ(V)-Cymorth-TB) can help you understand what you can do to start to mitigate that risk for your herd and build on those first steps thereafter. The concept of good biosecurity is one based on science and evidence of routes of transmission, but these first steps are ones that all herd owners will see as common sense, requiring little time, effort or financial investment. They cover a range of risk categories and can be tailored to your business. The real value of CHECS TB Entry Level Membership is the ongoing relationship between herd owner and veterinary surgeon, and the ability to gradually build up herd resilience to this very damaging disease through measures that suit your individual circumstances.

3.2 Method

CHECS TB Entry Level Membership is a simple review of biosecurity measures which aims to provide vets and farmers with an opportunity to discuss TB risk on-farm at a basic level and for the farmer to engage in the concept of biosecurity risk pathways.

Working through a CHECS-licensed health scheme (list available from www.checs.co.uk), farmers or cattle keepers undertake an annual assessment of biosecurity measures with their veterinary surgeon and submit the completed form back to the health scheme. The vet, the farmer and the health scheme each retain a copy of the completed form. In recognition of specialist knowledge concerning TB control and risk pathways, veterinary surgeons who sign off applications for CHECS TB Entry Level Membership will need to have completed the BATVA training course offered through the BCVA or be a Cymorth Veterinary Advisor (OCQ(V)-Cymorth-TB). The map and list of suitable veterinary advisors can be found on the BCVA website. (www.bcva.org.uk – search the menu under Continuing Professional Development)

From 1 August 2021, CHECS TB Entry Level Membership will form the basis for CHECS TB Herd Accreditation. Anyone joining or renewing CHECS TB Herd Accreditation will be required to have CHECS TB Entry Level Membership as a first step. Please visit the CHECS website www.checs.co.uk for an extensive range of answers to frequently asked questions.

3.3 Requirements – the 6 Risk Factors

Discuss the six TB risk factors below with your BATVA/ Cymorth advisor who will have undergone the required training and be able to discuss the most appropriate option(s) in each category for your farm. Please note: you must implement or meet at least one option in each of the six sections to qualify for CHECS TB Entry Level Membership. As a Member of CHECS TB Entry Level, you undertake to continue delivering to the agreed standards throughout the subsequent year and until your annual review.

3.3.1. Risk Factor 1: Minimise TB risk from purchased cattle

Purchased animals constitute a risk of introducing TB infection into the herd. The tuberculin skin test has a moderate sensitivity with approximately one in five infected animals missed at standard interpretation. However, the longer a herd has been free of TB, the more you can trust its most recent skin test is truly clear. By understanding the TB risk from purchased stock, more informed purchasing and management decisions can be made. Options to meet this requirement are one of the following:

- A. *I never buy cattle in*
- B. *If purchasing cattle, I only buy from herds less risky than my own (herds which have been TB-free for as many years as mine, or more)*
- C. *Before I purchase cattle, I look up the seller's herd's TB history on ibTB (www.ibTB.co.uk) to inform my purchasing decisions*
- D. *After purchase I look up the seller's herd's TB history on ibTB and alter my management of the purchased cattle depending on the TB risk*
- E. *I operate an Approved Finishing Unit (AFU) or Licensed Finishing Unit (LFU)*

3.3.2. Risk Factor 2: Minimise TB risk from contact with cattle in other herds

TB can be spread between cattle in close contact directly and via aerosols. Ensuring cattle have no nose-to-nose contact over gates, fences or hedges will reduce, if not eliminate, the risk of TB spread from neighbouring cattle. Options to meet this requirement are one of the following:

- A. *I have no contiguous grazing with other cattle holdings*
- B. *I never graze cattle on contiguous grazing at the same time as my neighbour's cattle*
- C. *There is a three-metre, double-fenced gap between my cattle and my neighbour's cattle*
- D. *There is no opportunity for nose-to-nose contact between my cattle and my neighbours' cattle due to a large hedge or wall*
- E. *Temporary use of electric fencing alongside my boundary prevents nose-to-nose contact between my cattle and my neighbour's cattle*
- F. *If I use common grazing, I comply with an APHA-approved TB control plan for the common*
- G. *I operate an Approved Finishing Unit (AFU) or Licenced Finishing Unit (LFU)*

3.3.3. Risk Factor 3: Minimise TB risk from your own animals

An animal that gives a negative skin test result when re-tested following an inconclusive result is known as a resolved inconclusive reactor (rIR). Since 2017 rIRs have been restricted to their holdings for life in High Risk and Edge Areas of England and in TB breakdown herds in the Low Risk Area of England. The only licensed off movements are to slaughter or to an Approved Finishing Unit. APHA may approve private interferon-gamma testing in order to release a rIR from life-long restrictions so that the animal can move freely after testing negative, assuming the herd is not under restrictions.

The known increased risk of a rIR having undisclosed *M.bovis* infection has led to the CHECS standards being stricter for management of rIRs. Under CHECS TB Entry Level standards rIRs should be removed from the herd as soon as possible and practical – in all areas of GB. The suggested options for this are listed below:

- A. *I cull them as soon as possible after the clearing test (within the next month)*
- B. *I do not put them back in calf and cull them at the end of their lactation*

- C. *I do not put them back in calf and cull them when their current calf is weaned*
- D. *I finish them inside on farm for slaughter*
- E. *I sell them to an Approved Finishing Unit*

For the CHECS TB Accreditation programme, removal of rIRs must be within 6 months of the initial test at which the Inconclusive Reactor was disclosed. They should be culled for slaughter or sent to an AFU.

3.3.4. Risk Factor 4: Minimise the spread of TB through muck or slurry

M. bovis can live for up to three weeks in well-composted farmyard manure (muck) and around six months in slurry. *Ad hoc* sharing of equipment, perhaps due to machinery breakdowns, can save time and money in the short term but could be a risk for introducing TB on to your farm. Contractors can also be a risk due to the difficulty of adequately cleaning and disinfecting their machinery. Options to meet this requirement are one of the following:

- A. *I do not share my equipment or I have my own muck or slurry spreading equipment*
- B. *When using hired equipment or contractors, I ensure equipment is always visibly clean on arrival*
- C. *I ensure muck and slurry are spread onto arable land or mowing grass, or, if they are spread onto grazing grass, that grass will not be grazed by cattle for at least 60 days*
- D. *If importing cattle muck or slurry from other cattle holdings, I ensure it is not spread on to cattle grazing land*

3.3.5. Risk Factor 5: Reduce TB risk to and from badgers

Badgers are known to be an important vector in TB transmission between cattle holdings. TB-infected badgers can excrete *M. bovis* in saliva, urine, faeces and pus from wounds. The most common way for infected badgers to transmit TB to cattle is via contaminated feed and water, and this can be a relatively easy risk pathway to address. Biosecurity measures that reduce direct and indirect contact between cattle and badgers also protect the badger population from TB. Keeping badger populations TB-free where they are not endemically infected is vital. With assistance from your BATVA, you should be able to recognise active and inactive badger setts, latrines and runs. Being aware of the badger activity on your farm can help prioritise areas to protect. Options to meet this requirement are detailed below. You must first choose A, B or C. If you select A or B, you must then select **at least one** option from i), ii), iii) or iv):

- A. *I have produced a simple map of badger activity on my farm for use throughout the year, to record seasonal sett use, runs and latrines. Where badger activity is identified I am reducing risk from contamination of water troughs and feed by (you must select at least one):*
 - i) *Badger-proofing vulnerable water troughs*
 - ii) *Feeding from badger-proof troughs*
 - iii) *Badger-proofing licks*
 - iv) *Protecting stored feeds from badgers*
- B. *I am using wildlife cameras in yards to identify areas of badger activity. Where badger activity is identified I am reducing risk from contamination of water troughs and feed by (you must select at least one):*
 - i) *Badger-proofing vulnerable water troughs*
 - ii) *Feeding from badger-proof troughs*

- iii) *Badger-proofing licks*
- iv) *Protecting stored feeds from badgers*
- C. *I operate an Approved Finishing Unit (AFU) or Licensed Finishing Unit (LFU)*

3.3.6. Risk Factor 6: Have a TB test failure contingency plan

A TB breakdown can have unforeseen consequences for animal health and welfare, farmer mental health and farm finances. Identifying which areas of the business would be affected by a breakdown and discussing options available to you with your BATVA can reduce the disruption a breakdown can cause. Options to meet this requirement are one of the following:

- A. *I finish all stock on farm or can finish all stock on farm*
- B. *I have a plan for youngstock leaving the farm*
- C. *I have a plan to be able to replace stock*
- D. *I operate an Approved Finishing Unit (AFU) or Licensed Finishing Unit (LFU)*

3.4 Failure to meet requirements

In line with other CHECS disease programmes, participants are expected to renew annually, within one month of the due date. If failures are detected at any time through the auditing process, CHECS TB Entry Level Membership will be suspended with immediate effect until the requirements are met. If you are also CHECS TB Herd Accredited, losing CHECS TB Entry Level Membership will, from August 2021, mean the suspension of CHECS TB Herd Accreditation as well.

4. Principles for CHECS TB Herd Accreditation

4.1 Objective

CHECS TB Herd Accreditation builds on the reduced risk of a TB breakdown conferred by CHECS TB Entry Level Membership. TB Herd Accreditation provides a system by which herds can be assessed and graded according to risk of a TB breakdown. This enables herds to reduce their disease risk further and facilitates trade between herds in a way that minimises disease spread. CHECS TB Herd Accreditation covers both beef and dairy herds.

4.2 Basic principles

CHECS TB Herd Accreditation scores are herd-level and only apply to homebred animals so cannot be used when selling animals that have been brought into the herd, irrespective of the status of the herd they have come from. Hence CHECS TB Herd Accreditation scores can only be used for the first sale; after that, the animal must be sold without a declared score.

All eligible animals must be presented for statutory TB testing when required. The facilities for testing must be such that the test can be carried out and completed accurately and safely. All animals must be identifiable by their unique ear tags or by electronic ID. Engagement with the TB Advisory Service (TBAS) in England or Cymorth TB in Wales is recommended for herds that have joined CHECS TB Herd Accreditation to reduce the risk of a herd breakdown as much as possible.

4.3 Method

In the first instance, farmers or animal keepers should apply to one of the participating health schemes listed on the CHECS website (www.checs.co.uk). You will be asked to fill out a form and sign a data sharing agreement that allows the health scheme to let APHA know you have joined CHECS TB Herd Accreditation, and allows APHA to send your herd's TB test history and any new data to the health scheme so it can allocate a CHECS TB Herd Accreditation score. Any change to your herd's record regarding TB testing, restrictions, breakdowns or clear tests will be notified to the health scheme so that your score can be changed accordingly.

All cattle herds are classed as Officially TB Free (OTF) if their TB tests are up-to-date and there is no suspicion of TB infection within the herd. Your herd may progress from a CHECS TB Herd Accreditation score of 0 to 10, with the higher numbers indicating lower TB risk. There are also mandatory requirements that support the control of TB (see Section 5).

To calculate the number of years since the last TB breakdown (if applicable), the date that movement restrictions were lifted at the end of the last TB breakdown is used. The score is counted as completed years since that date; hence the score is 0 until a full year has passed, when the score will become 1, and so on. The date the herd first achieved a particular score will be included on the Certificate of Accreditation. Should a herd, having reached a particular score, fail to meet the standard and lose its score, but subsequently regain its original score, the date on the certificate will be the date that score was regained.

The herd's veterinary surgeon must make an annual declaration that the farmer is continuing to abide by the mandatory biosecurity measures required by the programme.

Please note, statutory control measures are legal requirements that must continue to be observed, irrespective of membership of the CHECS programme. However, the CHECS programme introduces additional measures to reduce risk of exposure to TB and introduction of infection into the herd.

Please visit the CHECS website www.cheecs.co.uk for an extensive range of answers to frequently asked questions.

4.4 Scores within CHECS TB Herd Accreditation

Statutory routine surveillance TB testing is completed at intervals set according to the national TB disease control programme (see links at end of document), which may be subject to changes according to regional or local disease prevalence and incidence, and according to individual herd risk. Accreditation scores for herds in the scheme are set according to the number of years that the herd has been OTF, up to 10 years, as seen in the examples below.

4.4.1. Score 10

- The herd is OTF and there has not been a TB breakdown within the herd for 10 years or more
- All required statutory herd tests have been completed in accordance with the required testing regime for this herd
- The herd is operating within a CHECS-licensed health scheme, is adhering to the CHECS TB Herd Accreditation standards and has a current herd health plan covering the required aspects.

4.4.2. Score 9

- The herd is OTF and there has not been a TB breakdown within the herd for nine full years.
- All statutory herd tests have been completed in accordance with the required testing regime for this herd.
- The herd is operating within a CHECS-licensed health scheme, is adhering to the CHECS TB Herd Accreditation standards and has a current health plan covering the required aspects.

There will be a score corresponding to each number of years since the herd regained OTF status after a breakdown (see additional notes) down to:

4.4.3. Score 0

- The herd must be OTF
- There has been a TB breakdown within the herd in the past year
- All statutory herd tests have been completed in accordance with the required testing regime for this herd.
- The herd is operating within a CHECS-licensed health scheme, is adhering to the CHECS TB Herd Accreditation standards and has a current health plan covering the required aspects.

4.5 How test results affect Accreditation

4.5.1. Definition of a clear TB test

In accordance with statutory testing, for a herd test to be clear all animals eligible to be tested must be tested with a negative result. Any animal with an inconclusive result must have further testing carried out with negative results to demonstrate it is not a test-positive animal. Until all animals have achieved a negative result, the herd will remain at CHECS TB Entry Level Membership only with CHECS TB Herd Accreditation suspended. If no test-positive animals are found, the herd will regain its original score when CHECS TB Herd Accreditation is reactivated. However, 5.3.2 should be noted with regards to inconclusive reactors.

4.5.2. Definition of a TB breakdown

For CHECS purposes a breakdown is defined as follows: loss of officially TB free (OTF) status due to TB being suspected or confirmed.

A TB breakdown within the herd is deemed to have occurred when one or more animals tests positive to a TB skin test, or one or more animals tests positive to an interferon-gamma test, or a routinely slaughtered animal shows lesions which are culture or PCR positive for *Mycobacterium bovis*

Animals which have 2 consecutive inconclusive skin test results become reactors and also result in loss of OTF status for the herd. Initial disclosure of an IR does not automatically lead to loss of OTF.

Disclosure of an IR or detection of lesions characteristic of TB in a slaughtered animal results in suspension of Accredited status; however, these do not necessarily constitute a breakdown, unless follow up testing confirms disease.

4.5.3. Test-positive animals in the herd

Any animal that tests positive for TB by the tuberculin skin test, interferon-gamma test or any other validated test, or has lesions suspicious of TB at post-mortem/ slaughter, or a positive *M. bovis* culture or positive PCR of suspicious lesions detected at a slaughterhouse, is a positive animal and must be reported to APHA or the appropriate authority.

Inconclusive reactor animals will also be reported to APHA or the appropriate authority.

If a test-positive animal is identified in a herd through statutory or private testing, CHECS TB Herd Accreditation will be suspended until a TB10 notice is issued by APHA to lift herd movement restrictions; however, CHECS TB Entry Level Membership will be retained provided the required biosecurity standards are still being met. The herd will only have CHECS TB Herd Accreditation reinstated, regaining score

0, once no longer under movement restrictions. The same applies if a test-positive added animal is identified in a herd through post-movement testing unless it is confirmed that CHECS TB Herd Accreditation standards (biosecurity and quarantine measures) have been sufficiently observed to allow the herd to retain its original score once no longer under restriction.

If only inconclusive reactors (IRs) are disclosed at a routine herd/ pre-movement skin test then, as stated in 4.5.1, TB Accreditation will be suspended and the herd is recognised as TB CHECS Entry Level Membership only. If the IR(s) tests positive or inconclusive at the 60 day re-test then the herd will have to go through statutory breakdown testing and revert to score 0 once herd restrictions are lifted.

The same applies if an inconclusive reactor added animal is identified in a herd through post-movement testing, unless it is confirmed that CHECS TB Herd Accreditation standards (biosecurity and quarantine measures) have been sufficiently observed to allow the herd to retain its original score once no longer under restriction.

If the IR(s) is (are) resolved by a clear test at 60-day re-test then the herd Accreditation Score reverts to its pre-IR disclosure score, but maintains this only if resolved IRs (rIRs) are removed (by culling for slaughter or movement to an Approved Finishing Unit) within 6 months of the date of the original test disclosing the IR(s). The rIRs must be removed from the herd; this is applicable across all countries within GB. Under CHECS TB Accreditation standards a negative interferon-gamma result for a private test of this /these animals does not exclude the necessity for removal.

4.5.4. Positive test result in an added animal

Disclosure of a test-positive animal that is in quarantine, or a culture/ PCR -positive slaughterhouse case in an animal originating from quarantine does not constitute a TB breakdown under CHECS rules.

If, however, an added animal tests positive while in quarantine, the whole of the holding is still subject to restriction in line with statutory requirements. During this period, the herd will retain CHECS TB Entry Level Membership provided the required biosecurity standards are still being met, but CHECS TB Herd Accreditation will be suspended until a TB10 notice is issued by APHA to lift herd movement restrictions. If during the consequent tests no test-positive animals are found outside of quarantine, the herd will be restored to its previous CHECS TB Herd Accreditation score as from the date the herd regained OTF status. This will require declaration by the keeper and confirmation by their veterinary surgeon that the test-positive animals were only found in the quarantine facility and that quarantine was maintained.

If the quarantine facility is on a separate holding with a separate county parish holding (CPH) number then the main holding may be unaffected by the statutory restrictions and therefore its CHECS TB Herd Accreditation score would be maintained. APHA may, however, require that the whole herd is restricted and undergoes a check test.

If a suspected slaughterhouse case is found, CHECS TB Herd Accreditation will be suspended until that case is confirmed to be negative by culture/ PCR. However, CHECS TB Entry Level Membership will be retained provided the required biosecurity standards are still being met.

4.5.5. Offspring of, or calves reared by, female test-positive animals

Any calf under twelve months old that has been reared by a cow recognised as a test-positive animal must be subjected to a skin test after a suitable interval if this has not already taken place as part of the herd test. Any calves not eligible for testing at the initial test disclosing reactors should reach the eligible age for testing by the date for the subsequent statutory short- interval test.

To maintain the herd's CHECS TB Herd Accreditation score, such calves must be kept in isolation until they have had a clear skin test; the test must take place at least 60 days after separation from their reactor dams.

Any calf that has been reared by a cow since the time the cow was recognised as a test-positive animal should not be retained for breeding nor sold as a breeding animal.

4.5.6. Officially TB-Free Suspended & Officially TB-Free Withdrawn herds⁴

Herds yet to regain OTF status after a TB breakdown will maintain CHECS TB Entry Level Membership – provided the required biosecurity standards are still being met – until OTF status is regained, when they will regain CHECS TB Herd Accreditation score 0 (provided they are still meeting the required CHECS TB Herd Accreditation standards).

This does not apply to herds which have experienced a breakdown from an added animal in isolation, which has had no contact with the rest of the herd, which will have their previous score reinstated once OTF again (see note in 4.5.4).

OTFS and OTFW herds will continue as Members of CHECS TB Entry Level throughout any periods of restriction, provided they continue to comply with those biosecurity requirements.

⁴ Classifications of TB breakdowns can be found on the TB hub, see <https://tbhub.co.uk/advice-during-a-tb-breakdown/actions-once-tb-is-suspected-or-confirmed/>

5. Requirements for CHECS TB Herd Accreditation

The following sections detail the requirements for herds participating in CHECS TB Herd Accreditation. While a number of criteria are offered as either/or options under the same headings in CHECS TB Entry Level Membership, you should note that you may be required to meet more than one criterion when stepping up to CHECS TB Herd Accreditation. This is explained under each heading. Further guidance on biosecurity for TB control can be found at www.tbhub.co.uk/biosecurity. Herd owners, managers and veterinary surgeons participating in a cattle health scheme must be familiar with this advice and must achieve the requirements to retain CHECS TB Herd Accreditation and current scores.

A herd health plan covering the control of TB must be in place as part of the requirements of CHECS TB Herd Accreditation. It must be updated at least annually and signed off by both the herd's private veterinary surgeon and by the herd owner or manager. The health plan must be available to the health scheme provider within one week, on request. The herd health plan must cover the aspects listed in this document.

5.1 Risk Factor 1: Minimise TB risk from purchased cattle

5.1.1. Added new animals

For CHECS Accreditation purposes, unless an animal to be introduced into the herd has resided since birth in a low-incidence area (the Low-Risk Area of England, Scotland or the Low TB area in Wales), it must be subjected to a pre-movement skin test with clear results at the holding of origin within 60 days of the proposed introduction. Under statutory requirements, from 18th May 2023 animals being brought into Scotland from the High Risk and Edge areas of England and all of Wales must have been subjected to a pre-movement skin test with clear results within 30 days of the proposed introduction.

Post-movement skin testing of added animals is compulsory for members of CHECS TB Herd Accreditation unless the animals have resided since birth in a CHECS TB Herd Accredited score 10 herd where there is no statutory requirement for pre-movement testing. The post-movement test must be conducted between 60 and 120 days after arrival. Pre- and post-movement testing is paid for by the keeper unless it happens to coincide with a statutory test.

In Scotland there is a statutory requirement to post-movement test any animals coming in from the High Risk and Edge areas of England and all of Wales even if they have resided in a CHECS Accredited Score 10 herd since birth.

On entry to the herd, it is recommended that all added animals are placed in quarantine and the general CHECS rules on isolation and testing apply. Observing these rules means that in the case of a positive test result, the animal will not affect the herd's CHECS TB Herd Accreditation score once the herd is no longer under movement restrictions. It is, however, not compulsory for the added animals to be kept in quarantine until the post-movement skin test has been conducted but if the added animal, then fails the skin test outside of quarantine, the herd will be deemed to have suffered a breakdown under CHECS standards and the herd will drop to score 0 once OTF status has been regained (see 4.5.6).

All post-movement testing must be conducted by an Official Veterinarian (OV) or Approved Tuberculin Tester (ATT) working within the veterinary practice responsible

for monitoring the CHECS standards on the farm. The annual review of the biosecurity health plan by the farmer's practice should include assessment of quarantine facilities; the owner can declare that the animal has been in quarantine and veterinary surgeon can confirm that CHECS quarantine standards are being observed.

Adding animals to an accredited herd carries risk; use of tests with enhanced sensitivity (in addition to the post-movement skin tests required under CHECS standards) may be an option in future to help manage this risk.

In England only, with prior permission from APHA, consideration should be given to testing added animals while in quarantine using interferon-gamma test. The farmer should first discuss with their vet the potential consequences of a test-positive animal on the herd OTF status.

5.1.2. Informed purchasing

The longer a herd has tested free of TB, the more likely it is that it is disease free. By understanding this risk, along with an enhanced testing regime and possibly the use of testing technologies with a greater sensitivity than the skin test, more informed purchasing and management decisions can be made and TB risk reduced.

Under CHECS TB Herd Accreditation, it is optimal to run a closed herd and never introduce any purchased animals (option A for Risk Factor 1 under CHECS TB Entry Level Membership). If this is not a viable option, you must confirm the status of prospective purchase animals on the interactive bovine TB mapping tool (ibTB) (www.ibTB.co.uk) before purchasing for animals coming from England or Wales, and never purchase animals from a herd with a more recent TB breakdown than your own herd.

5.2 Risk Factor 2: Minimise TB risk from contact with cattle in other herds

5.2.1. Farm boundaries

Under CHECS TB Herd Accreditation, no nose-to-nose contact with neighbouring livestock is permitted under any circumstance. Common grazing is not permitted either under CHECS TB Herd Accreditation (option F under Risk Factor 2 for CHECS TB Entry Level Membership).

5.2.2. Shows and sales

Animals attending shows and sales are at risk of contracting TB even when all animals attending the show or sale have been pre-movement tested. Certain agricultural shows have been assessed as lower risk by APHA or by the Office of the Chief Veterinary Officer for Wales and therefore are deemed to be exempt from the pre-movement TB testing requirement. In these cases, CHECS TB Herd Accredited herds will follow the statutory requirements for pre-and post-movement testing, as can be found at www.tbhub.co.uk. Animals returning to the herd from shows and sales which have not been deemed to be exempt from pre-movement testing shall be regarded as being the same as added animals that required pre-movement testing and, as such, will require post-movement testing between 60 and 120 days after the last show before being returned to the herd. Isolation must be maintained between multiple shows in a single season.

5.2.3. Grazing of cattle

Cattle must not be grazed on pasture previously grazed by non-CHECS TB Herd Accredited cattle until a period of two months has elapsed.

5.3 Risk Factor 3: Minimise TB risk from your own animals

5.3.1. Isolation facilities

An isolation facility that prevents contact with other stock is required to isolate test-positive or inconclusive animals. This is also advised for all added animals (see 5.1.1). A dedicated building separate from other cattle buildings is ideal, but a separate paddock that prevents contact with other stock may suffice as the isolation facility. No air space, drainage or manure storage may be shared with other cattle. Manure may only be removed from the dedicated storage area to be spread on land or added to the main manure store when all animals in the isolation facility have passed the required health tests and have been added to the herd. If any of the animals in the isolation facility test positive for TB, manure from the isolation facility must not be used in recycled bedding or be disposed of onto pasture that is to be grazed by cattle within two months. Where paddocks have been used to isolate test-positive animals or to quarantine cattle, other cattle must not be allowed to graze them for at least two months.

5.3.2. Inconclusive Reactors (IRs)

Removal of resolved IRs is required, as specified in CHECS TB Entry Level Membership under Risk Factor 3 (See 3.3.3), and any of those options for removal are supported under CHECS TB Herd Accreditation. Under CHECS TB Accreditation standards IRs resolved by a clear test at statutory 60-day re-test must be removed (culled for slaughter or moved to an Approved Finishing Unit) within 6 months of the date of the test originally disclosing them as IRs. This applies across England, Scotland and Wales. A negative interferon-gamma result for a private test on a rIR does not exclude the necessity for removal of the animal.

Milk from rIRs must not be fed to calves.

New applicants for CHECS TB Accreditation must declare that any rIRs present in the herd at the point of joining the scheme will be removed within 6 months of the initial disclosing test.

Where newly disclosed IRs are slaughtered voluntarily (under licence from APHA) or die ahead of their 60-day re-test, the following should be borne in mind:

- Under APHA rules the whole herd may need to undergo a check test. This is at the discretion of the Veterinary Head of Field Delivery and may depend on whether an official APHA post-mortem examination is carried out on the voluntarily slaughtered IR (s)
- Under CHECs rules, if APHA do not decree that a check test is necessary and no movement restrictions are applied on the herd after voluntary IR slaughter, then the CHECS TB Accreditation status of the herd can revert to that before IR disclosure.

- If a check test is necessary, then CHECS TB Accreditation status will be suspended and down-graded to Entry Level until the check test has been completed with negative results, at which point it will revert to that pre-disclosure of the IR(s).

5.3.3. Other ruminants

Other ruminants can be a source of infection for cattle and you must not co-graze them with your cattle. This applies to all but extensive grazings.

5.3.4. Hygiene

M. bovis can survive for several months in the environment. The cleaner you can keep your farm, yards and buildings, the lower your risk of disease transmission. Feed and water troughs, in particular, must be kept clean; discuss your disinfection schedule with your veterinary surgeon.

5.3.5. Protect water provision at grass

Where-ever possible mains water must be provided. Ponds and other areas where cattle can defecate and drink from the same area should be fenced off. Herds on extensive grazing of at least 50 hectares are exempt from this requirement, but note that enclosed grazings (in-by) are not exempt.

5.3.6. Adapt feeding practices

Avoid high stocking densities and over-grazing. Intensive grazing encourages cattle to graze margins of fields where there is more risk of infection.

5.4 Risk Factor 4: Minimise spread of TB through muck or slurry

M. bovis can survive several months in muck and slurry, and to reduce this risk, it is **strongly advised** that those in CHECS TB Herd Accreditation only use contractors who are National Association of Agricultural Contractors' Assured Land Based Contractors and are participating in the Agricultural Operations Scheme (NAAC – see www.naac.co.uk). Furthermore, compliance with **A, C and D, or B, C and D** measures as laid out in Entry Level Membership under Risk Factor 4 (see 3.3.4) is required.

5.5 Risk Factor 5: Reduce TB risk to and from badgers

To reduce the risk of *M. bovis* being spread to or from badgers, participation in CHECS TB Herd Accreditation requires those who select either options A or B in CHECS TB Entry Level Membership under Risk Factor 5 (see 3.3.5), and find evidence of badger activity, to comply with **all** the requirements from i) to iv) in A or B, namely:

- badger-proofing vulnerable water troughs, and;
- feeding from badger-proof troughs, and;
- badger-proofing licks, and;
- protecting stored feeds from badgers.

Only if you select option C under CHECS TB Entry Level Membership are you not required to comply with any or all conditions in A or B.

5.6 Risk Factor 6: Have a TB test failure contingency plan

In addition to compliance with Risk Factor 6 requirements under CHECS TB Entry Level Membership (see 3.3.6.), your contingency plan will need to identify trading options for cattle whilst under TB restrictions, such as orange and red markets. Also, look into how to apply for a licence to move TB-restricted cattle. Ensure you have contact numbers readily available for local Approved Finishing Units (AFUs). Discuss breeding plan changes with your veterinary surgeon as well as what you would do with any pedigree stock you would ordinarily sell. Familiarise yourself with the application process for a TB Isolation Unit (TBIU). The TB Hub (www.tbhub.co.uk) is a good source of information to help you plan.

5.7 Failure to meet requirements

Failure to provide a current and signed-off herd health plan within one week of it being requested by the health scheme will result in the immediate suspension of CHECS TB Herd Accreditation.

In the event of a TB breakdown, or CHECS TB Herd Accreditation being suspended because a herd fails to adhere to any of the control elements required (as detailed above), it will still retain CHECS TB Entry Level Membership provided it continues to fulfil all the necessary criteria for this. Herds can only regain TB Herd Accreditation and have their previous score reinstated when all mandatory requirements have been satisfied and after the next herd test (assuming entirely clear results).

Suspensions of Herd Accreditation status due to IR disclosure or identification of lesions with suspicion of TB characteristics at slaughter will be revoked when the IR tests clear or the culture/ PCR results from the lesions are notified as negative. Thus

status and score can be re-instated before the next routine herd test, assuming other criteria are met.

Herds are given one month after the annual renewal of CHECS TB Herd Accreditation is due to renew. If this target is missed, their Accreditation is either suspended altogether or they remain as CHECS TB Entry Level Members, provided they remain within date and the respective requirements are still being met.

6. Links to National TB control programmes

Great Britain: <http://www.tbhub.co.uk/>

England: <https://www.gov.uk/government/policies/bovine-tuberculosis-bovine-tb>

Wales: <https://gov.wales/bovine-tb>

Scotland: <http://www.gov.scot/Topics/farmingrural/Agriculture/animal-welfare/Diseases/disease/tuberculosis>