

DEALING WITH TB IN YOUR HERD

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Reactor animals





This leaflet gives advice and guidance on reactor animals – those animals that have been tested for bovine TB and have failed the test.

Animal Health will remove your reactor animals as quickly as possible to help control the disease, to help reduce the risk of spread to other animals in the herd and to help your herd regain its TB-free status.

How is bovine TB detected in live cattle?

The tests currently used for bovine TB are to detect infection rather than disease.

The two types of test currently approved in the European Union for the diagnosis of bovine TB in live cattle are based on the principle of detecting infection. These are:

- the single intradermal comparative tuberculin test (SICTT), known as the skin test, and is the primary screening test
- the Gamma Interferon test, which is only approved as an ancillary diagnostic tool.

What is a reactor animal?

A reactor is an animal that has failed either of these tests. Reactors are also those animals that have provided inconclusive test results on two consecutive occasions.

These are cattle that give a test result consistent with their being infected with bovine TB.

Do all reactors have bovine TB?

The tuberculin skin test is used throughout the world to screen cattle and other animals for TB. The tuberculin test is the internationally-accepted standard for detection of infection and is considered the best test currently available for detecting TB in live animals.

No screening test for animal diseases is perfect and the skin test is no exception. The test can be expected to detect approximately 80 per cent of all the infected cattle in a herd at any one test.

In Great Britain, when the test is applied to cattle without TB there is a 1 in 1,000 chance that a non-infected animal will be wrongly classified as a reactor.

As it is impossible to find out in living animals whether the reaction to the test is due to bovine TB, all reactors have to be regarded as infected and must be slaughtered according to national and European Union regulations in order to eliminate any risk of infection to other cattle.

What happens when a reactor is found?

Your herd will be placed under movement restrictions and Animal Health will arrange for the reactors to be valued and slaughtered. In some cases, non-reactor animals may also be removed as direct contacts.

The rest of your herd will have to undergo a series of tests until Animal Health is satisfied that the herd is free from bovine TB and restrictions can be lifted. In prescribed circumstances, the tuberculin skin test may be supplemented with the Gamma Interferon test.

When reactor cattle with confirmed TB are found within a herd, Animal Health will notify the local health and environmental health authorities.

What happens to reactor cattle?

Reactor cattle should be considered as presenting a danger of infection to the rest of your herd and you must immediately isolate them until they are sent for slaughter.

Your reactor cattle will be valued prior to slaughter and you will receive compensation for all reactors and any other animals slaughtered to control bovine TB.

The reactor carcase will be examined to find out how advanced the infection is and, where necessary, tissue samples will be taken and sent for analysis to a diagnostic laboratory.

The laboratory will attempt to isolate bovine TB from the samples which will take at least six weeks. The results will help Animal Health to understand the nature of the outbreak.

Why does there have to be a post-mortem examination?

By examining the carcase, Animal Health may be able to confirm whether your animal had bovine TB and, if so, whether the disease was in an early or advanced stage.

The post-mortem findings help determine how much more testing is needed in your herd and in neighbouring herds, and whether any animals you have bought or sold before the TB restrictions came into force should be traced.

If bovine TB is confirmed, the tuberculin test results will be reviewed, lowering the cut-off point for an animal to be declared a reactor. This is known as 'severe interpretation' and may result in further animals being classed as reactors.

Animal Health will provide you and your veterinary surgeon with a written report on the results of the post-mortem examination. Similarly, if samples are sent for culture, Animal Health will write to you as soon as the results are known.

If your tuberculin test revealed several reactors, samples may not be collected from every animal slaughtered, although all will have a post-mortem examination.

What happens if there is no detectable evidence of bovine TB in the reactors?

If bovine TB is not found at the post-mortem examination or in the laboratory, the animal will be classed as an 'unconfirmed reactor'.

Further herd tests will still be required to make sure there is no infection on your farm.

Please remember that because a post-mortem examination is not a perfect technique for identifying bovine TB, failure to find TB lesions or to culture the disease from samples does not mean the animal did not have bovine TB.

Why was TB found in an animal sent to slaughter, despite the last herd test showing no signs of bovine TB?

The tuberculin test assesses the TB status of the herd on the day it is carried out. Cattle in your herd may be at risk of infection and become infected after the test is completed, for instance through cattle moving into your herd, contact with other cattle across farm boundaries, or direct or indirect contact with infected wildlife.

Although the tuberculin test, if correctly performed, is the best test currently available, it may occasionally miss an infected animal, which may show evidence of disease later when it is slaughtered. The same can happen with the Gamma Interferon test. This may, in



some cases, be a temporary failure to react to the diagnostic tests for TB because of a nutritional, post-calving or other type of stress, because of concurrent infections, or as a result of administration of immunosuppressant drugs.

Another recognised cause of infected cattle failing to react to the skin and Gamma Interferon tests is the collapse of the cell-mediated immune response in cases of severe, generalised TB, a phenomenon known as 'anergy'.

What should you do with the milk from reactor cows until they are removed?

Milk from individual reactors to the tuberculin or other diagnostic tests must not be used for human consumption. Milk from these animals must be withheld from the bulk tank. It is not recommended that you feed it untreated to calves or other livestock.

The milk can be collected in the slurry system, but subsequent land spreading must be in accordance with a registered Waste Management Licence Exemption.

To register, contact:

- the Environment Agency in England and Wales:
www.environment-agency.gov.uk/business/topics/permitting/32322.aspx
telephone the Environment Agency Helpline: **08708 506 506**
- in England only, the Defra Whole Farm Approach
www.defra.gov.uk/foodfarm/farmmanage/wholefarm/questions.htm
telephone the Defra Helpline: **08459 33 55 77**
- the Scottish Environment Protection Agency in Scotland
www.sepa.org.uk/waste.aspx
telephone SEPA's corporate office: **01786 457700**

The above agencies, or your local Animal Health office, will be able to offer advice on how to dispose of milk from reactor cows.

Further information

Contact your local Animal Health office for further practical advice and guidance or visit the Animal Health website:

www.defra.gov.uk/animalhealth

Since devolution, the responsibility and powers in regard to animal health legislation has meant that there are significant differences in the policies regarding bovine TB in England, Wales and Scotland. The Defra, Scottish Government and Welsh Assembly Government websites providing up-to-date detail on these policies can be accessed from the Animal Health website.

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.

This leaflet is one of a series about dealing with TB in your herd. The leaflets are structured so that you should clearly be able to find the information you need, depending on the location of your farm.

DEALING WITH TB IN YOUR HERD leaflets are:

- 1 Bovine tuberculosis (TB): What is it? Why do we test for it? How do we detect it?
- 2 What happens if bovine tuberculosis (TB) has been detected in your herd?
- 3 Reactor animals
- 4 Inconclusive reactors
- 5 Valuation, slaughter and compensation
- 6 Movements on and off restricted premises
- 7 What further testing will be required?
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- 9 How to reduce the risk of bovine tuberculosis (TB) on your premises
- 10 Understanding the risk of bovine tuberculosis (TB) to cattle from wildlife
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- 13 Tuberculosis in deer
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- 15 Tuberculosis in camelids

The Health Protection Agency, in association with Animal Health and others, has produced a leaflet providing information on the human health risks associated with bovine TB: Reducing the risk of human *M. bovis* infection: information for farmers.

This leaflet has been produced by Animal Health in association with:



HEAD OFFICE:

Animal Health Corporate Centre, Block C,
Government Buildings,
Whittington Road, Worcester WR5 2LQ
t +44(0)1905 763355 f +1905 768851
e corporate.centre@animalhealth.gsi.gov.uk

ANIMAL HEALTH IS AN EXECUTIVE AGENCY OF THE
DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS
AND ALSO WORKS ON BEHALF OF THE SCOTTISH EXECUTIVE,
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