



Animal &
Plant Health
Agency

APHA Briefing Note 02/24

Bovine tuberculosis – Extended use of the polymerase chain reaction (PCR) test

Date issued: 26 January 2024

Purpose

1. To inform Official Veterinarians (OV) in Great Britain (GB) and Approved Tuberculin Testers (ATT) in England and Wales of the extension of the use of the *Mycobacterium bovis* (*M. bovis*) polymerase chain reaction (PCR) test to tissue samples from **bovine** TB test-positive animals, direct contacts (DC) and compulsory or privately slaughtered/dead Inconclusive Reactors (IR).

Background

2. On 30 March 2022 APHA officially adopted in GB a newly validated RT-PCR test as the primary laboratory diagnostic method for the direct detection of *M. bovis* in tissue samples collected from carcasses of:
 - TB slaughterhouse cases in cattle and non-bovines, i.e. test-negative or untested animals routinely sent for private commercial slaughter found to have suspicious lesions of TB at routine meat inspection;
 - Non-bovine animals such as camelids, goats, pigs, sheep and farmed deer that are removed as TB test reactors, direct contacts or clinical TB suspects, and cases where suspicious TB lesions are identified on diagnostic post-mortem examination in a veterinary laboratory; and
 - Domestic pets (cats and dogs) and exotic species of animals (e.g. in zoological collections) submitted to APHA for laboratory investigation for bTB.

APHA is an Executive Agency of the Department for Environment, Food and Rural Affairs and also works on behalf of the Scottish Government, Welsh Government and Food Standards Agency to safeguard animal and plant health for the benefit of people, the environment and the economy.

3. For more details of that change please refer to [APHA Briefing Note 14/22](#) released on 31 March 2022.

What's changing?

4. From **14 February 2024** APHA will extend the use of the PCR test to all tissue samples collected from bovine TB test-positive animals, DCs and compulsory or privately slaughtered/dead IRs.
5. This change will not have any implications on the management of TB breakdowns, other than that the detection of *M. bovis* in post-mortem samples sent to an APHA TB diagnostic laboratory will be achieved sooner in most cases.
6. The PCR test results are considered final. PCR test-negative samples will not be processed for bacteriological culture. Culture will only be attempted for PCR test-positive samples from which a Whole Genome Sequencing (WGS) clade result is needed to support epidemiological investigations, and for a very small proportion of tissue samples that fail to yield a valid PCR test result.

Action

7. OVs and ATTs should familiarise themselves with updated instructions on the APHA Vet Gateway website <http://apha.defra.gov.uk/vet-gateway/>. OVs and ATTs can signpost their clients to the TB hub website for details about the PCR test.

Further Information

8. Press release - <https://www.gov.uk/government/news/use-of-btb-pcr-testing-to-expand-following-success-of-first-phase>
9. Detailed information about APHA's PCR test for *M. bovis* can be found on the TB hub website: <https://www.tbhub.co.uk/> which will be updated in due course.