

Testing procedure on Suspicion of bTB at post-mortem examination reported to APHA.

APHA imposes precautionary herd movement restrictions pending laboratory culture results.

A skin test (single intradermal **comparative** cervical tuberculin – SICCT) may be conducted after the detection of typical lesions of TB and before identification of *M. bovis* by culture. In exceptional cases, where there is strong evidence of infection, a check blood test may also be carried out to avoid delay that may exacerbate the problem. Ideally, this should be carried out 10-30 days after the skin test. In such cases, the owner has a choice of which tests are used - 4-antigen Enferplex or a serial IDEXX and CERVID-DPP test. In cases, where there are subsequent positive culture results, the results of these tests may be re-interpreted, and further animals removed, in order to better manage the risk of further spread within the herd.

These 'check tests' will not be qualifying tests for the purposes of withdrawing the movement restrictions (as the skin test was performed <90 days after the death/removal of the index case on the premises). But any animal which is positive to a check test should be isolated and removed and if the subsequent culture result is negative (i.e. full parallel testing is not triggered) the herd would be subject to a comparative skin test at least 90 days after the removal of the last test reactor. If that follow up skin test is negative, APHA will lift the movement restrictions.

If *Mycobacterium bovis* is identified in laboratory culture, APHA contacts keeper to confirm the restrictions and arrange single bovine intradermal tuberculin skin tests of all the remaining camelids on the holding, followed 10-30 days later by antibody testing of skin test-negative animals with parallel² interpretation to enhance the sensitivity of TB testing. The owner has a choice of which two antibody tests are used, out of Enferplex (2 antigen), IDEXX and DPP. For APHA to lift the movement restrictions, the whole herd must have completed (a) two consecutive rounds of single bovine intradermal tuberculin skin tests with negative results at a minimum interval of 90 days after the removal (or effective isolation) of the last infected or test-positive animal in the herd and (b) one round of antibody parallel testing, also with negative results.

Any **spread tracings** instigated by APHA from herds with confirmed *M. bovis* will also be subjected to TB testing at the Government's expense. This will comprise: (i) one single bovine intradermal tuberculin skin test; and (ii) if the tested camelids are negative, the owner's choice of two antibody blood tests, from blood taken 10-30 days after the skin test, using parallel interpretation. The owner has a choice of which two of the three (Enferplex (2 antigen), IDEXX and DPP) antibody tests are used. ONLY the traced camelids are subject to the skin and antibody tests and ONLY if a positive result to the skin or blood test is found will the rest of the destination herd be tested. All contact and movements must be declared by the owner of the index premises at the time of the breakdown and APHA will endeavour to complete all tracings within 6 months of confirmation of *M. Bovis* infection.

There is the subsidiary scenario where a camelid herd contiguous to (i.e. shares a common land border with), co-located with or back-traced from any holding with *M. Bovis* infection confirmed in farmed animal species is identified by APHA. Each camelid in such herds will require one **comparative** intradermal skin test (SICCT) with negative results, supplemented with an antibody blood test 10-30 days later at the Government's expense. The owner has a choice of which tests are used - 4-antigen Enferplex or a serial IDEXX and DPP test.

If there are any test positives:

Isolate and remove from the holding, as soon as practicable, all skin or blood test positive camelid(s) for Post Mortem (PM) examination.

Once *M. Bovis* infection has been confirmed in a herd, APHA may not carry out PM examinations and bacteriological cultures of every test-positive animal, particularly where there are large numbers of positives and PM results are not essential to establish the next step in managing the TB incident. Single intradermal tuberculin skin testing to be repeated at 90-day intervals until two consecutive herd tests with negative results are obtained.

Further rounds of combined antibody blood tests using parallel interpretation may be conducted at APHA's discretion if further evidence of residual *M. Bovis* infection in the herd is found after completion of the initial antibody herd test. This evidence could be in the form of lesion/culture- positive skin test reactors or animals removed between two skin tests as direct contacts (Dcs) or as clinical cases. As per the initial TB blood test, the owner has a choice of which two antibody blood tests are used. Again, this additional round of antibody testing will be at the government's expense and will ideally take place 10- 30 days after the single intradermal tuberculin skin test.

It is strongly recommended that herd owners carry out another round of blood testing (where owners choose two antibody blood tests using parallel interpretation) 12 months after the conclusion of the incident (withdrawal of movement restrictions) to check for residual *M. bovis* infection in the herd. This is a recommended, but voluntary measure at the herd owners' expense. In this case a single intradermal tuberculin injection should be administered 10 - 30 days prior to the blood test to 'prime' the antibody response. It is for the owner to decide if the tuberculin injection site is to be read in this case.

