Tuberculosis (TB) is a zoonotic disease caused by *Mycobacterium tuberculosis* species. The most likely strain affecting camelids is *M. bovis*, this is the same strain as that responsible for TB in cattle.

*M. bovis* has a wide host range, allowing for multiple reservoirs of infection. This complicates the current control programmes in the UK. Unlike in cattle, there is no statutory surveillance programmes in place to monitor the presence of this disease in camelids.

As a native South American species, alpacas are adapted to living at much higher altitudes. As a result, alpacas have a large reserve lung capacity meaning that up to 90% of the functional lung volume can be lost before signs of disease are visible. Therefore, disease can be spread by seemingly healthy individuals.

**Detection of TB**

- TB tends to be most commonly detected in camelids at post-mortem examination - this may be diagnosed even if no clinical symptoms were present prior to death.
- Lesions can be present within the lungs, upper respiratory tract, liver, spleen and lymph nodes. Signs seen in the live animal may include coughing, nasal discharge, increased respiratory effort, lethargy and weight loss.
- If TB is suspected in a camelid, the veterinary surgeon must notify the APHA (Animal and Plant Health Agency, part of DEFRA).

**Current Tests in Use**

**Intradermal tuberculin test:**
This is the test used for routine surveillance in cattle, however it is fairly unreliable in camelids; giving both false positive and false negative results.

This test involves the injection of tuberculin (an antigenic extract from *Mycobacterium*) into the skin at the axilla. The test is read 72 hours later. A positive result is identified if there is sufficient reaction at the injection site.

**Blood tests:** (E.g. Rapid StakPak/ IDEXX/ DPP/ Enferplex)
These tests recognise antibody responses to *Mycobacterium*
It is recommended that this test is performed 10 - 30 days after the intradermal tuberculin test, which stimulates the immune system, in order to increase the number of infected animals identified.

These tests are more accurate than the skin test.
Current Testing Recommendations and Regulations

On 1st October 2014, changes to the testing regulations were implemented by DEFRA; If TB is suspected or confirmed in an individual, APHA inspectors may enforce testing of the rest of the herd.

If TB is strongly suspected, e.g. due to the presence of lesions at post-mortem, APHA will place precautionary movement restrictions on the herd until culture results are obtained. With the owner’s consent, an initial tuberculin skin test will be performed (at Government’s expense).

If TB is confirmed by culture of lesions found at post-mortem, APHA will:

- Put in place herd movement restrictions - this means that no animal can leave or enter the herd
- The whole herd will be tested with the intradermal test. In non-reactors, two blood tests will then be carried out 10-30 days later (at Government’s expense)
- A positive reaction to any one of the tests will result in removal of the animal
- In order for movement restrictions to be lifted, the whole herd must be negative to at least one set of skin and blood tests
- There is a statutory compensation payment for animals removed from the herd.

Options for control in your herd

Voluntary pre-movement testing - test animals before they move from your premises to reduce the chance of possible spread, and ensure that any animals entering your premises have been tested.

Interval testing - testing of individuals or the whole herd at regular intervals using the blood tests to identify infected animals which may pose a risk to you and the rest of the herd.

Please be aware that positive results have to be reported to DEFRA, inconclusive results require retesting of the animal, and if this is not done DEFRA is also informed.

Here to help

Opening hours
Mon-Fri
9am - 5pm
24 hour emergency cover

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