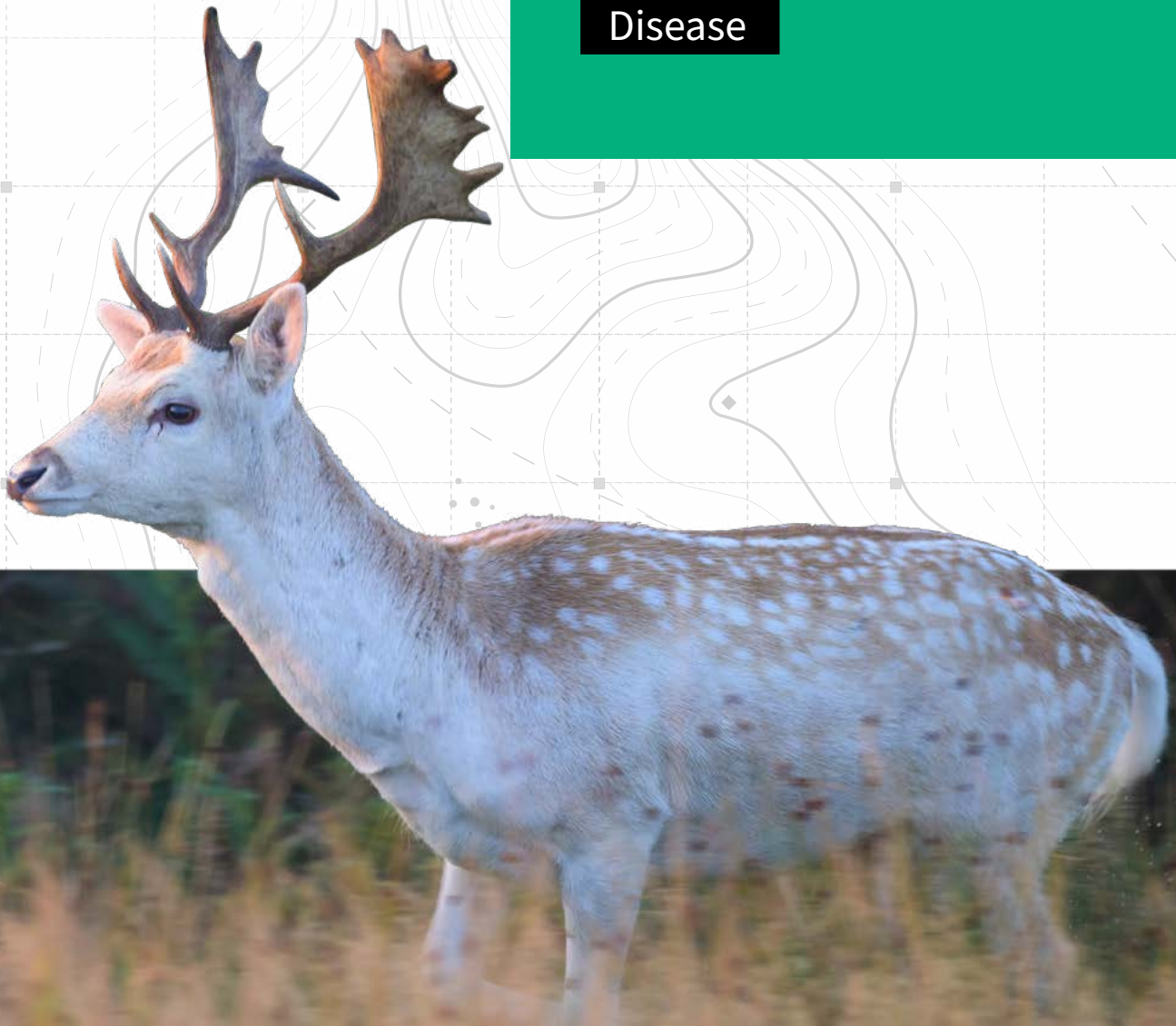
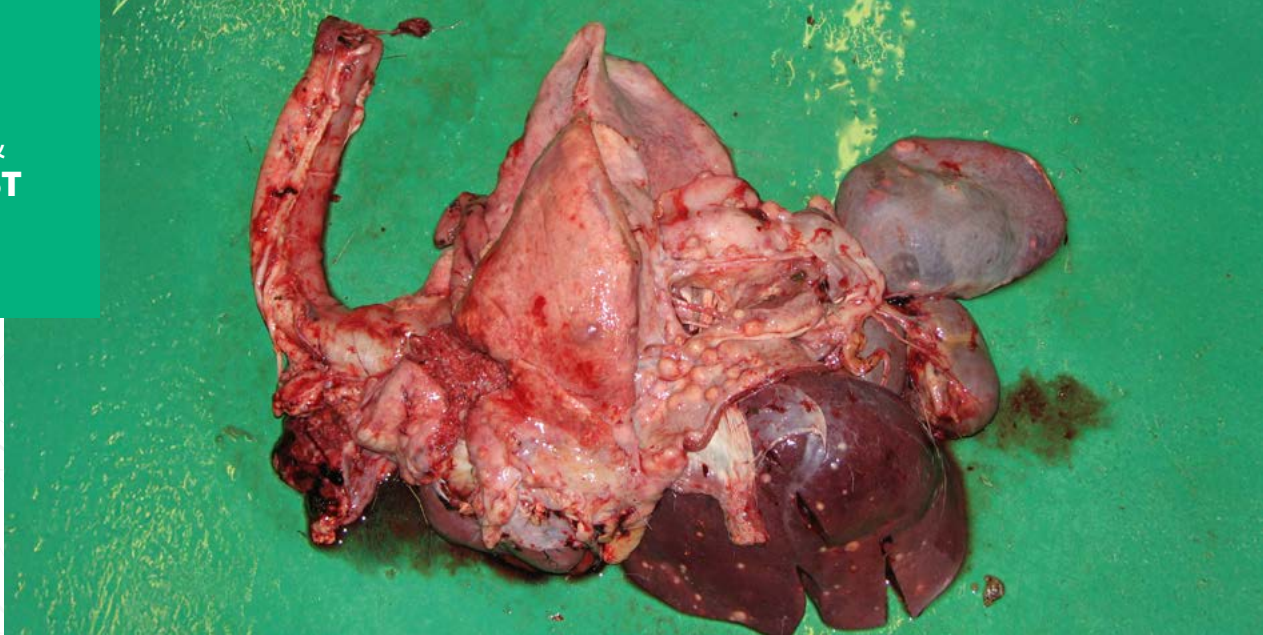


ENGLAND &
WALES **BEST
PRACTICE
GUIDES**

Bovine Tuberculosis.

Disease





Introduction

The purpose of this guide is to describe Bovine Tuberculosis (bTB) in deer and how to deal with suspect infected carcasses.

This guide links to the Deer Legislation and Carcass Inspection guides.

It applies only to England and Wales, although similar regulations apply in Scotland.

Description

In all mammals, bTB causes abscessation, often with multiple abscesses in the internal tissues.

Cattle are the primary host of bTB, the disease can also be seen in sheep, goats, pigs (including wild boar), camelids and all wild mammals in the UK, with the exception of bats. Badgers and deer are the wild species of greatest concern. Very occasionally humans become infected.

It is caused by *Mycobacterium bovis*, one of a closely related group of bacteria that includes *M. tuberculosis* (the primary agent of TB in humans). Both of these are part of a larger family of bacteria, many of which are harmless. Others are responsible for diseases such as human

Legislation

Bovine TB (bTB) is a notifiable disease as named in the Animal Health Act (1981) or any Order made under that Act.

Under The Tuberculosis in Animals (England) Order (2021) or the Tuberculosis (Wales) Order (2010), suspicion of TB in any deer (or carcass) whether farmed, park or wild, must be notified to the Animal and Plant Health Agency of Defra (APHA).

leprosy, Johne's disease in ruminants and avian TB (tuberculosis of birds).

Infection with bTB is spread by excretions from infected animals: mucous from the nose and mouth, faeces, urine and discharges from surface abscesses. Just which excretions are most significant varies between animals. This transmission happens mostly when animals are in close contact with each other; animal density therefore plays a major factor in the transmission of *M. bovis*. The infection can survive on contaminated feedstuffs for weeks in winter and can persist in soil for months. It does not travel through the air and is not spread by insects.

bTB in deer in the UK

Infection with bTB has occurred sporadically as isolated cases in deer for many years. These animals have been considered to be spill-over infections from cattle or badgers, both of which are proven to be 'maintenance hosts'. This means that populations of both cattle and badgers can maintain infection, passing it between individuals in the population. Currently, the majority of infected wild deer are still most likely to be acting as spill-over hosts of *M. bovis*, reflecting the presence of bTB in an area rather than acting as a reservoir of the disease for cattle.

However, deer do have the potential to become maintenance hosts of the infection and in a few, limited areas of England, a maintenance population of wild deer does appear to exist, in both red deer and fallow deer.

Because increased wild deer densities and the congregation of deer at artificial feed sites are both high risk factors for the spread of infection, good, informed deer management is an important tool in bTB management and keeping deer away from farm feed points is essential.

APHA is aware of possible maintenance populations of wild deer and is actively investigating these. Research shows that the genetic identity of bTB in the infected deer in these 'hot spots' is the same as that in local cattle, but there is no evidence of whether or not the infection is passing in both directions between cattle and deer. The relaunch of the TB Strategy for England in 2024 specifically mentioned the possibility that deer may be involved in the challenges faced by cattle farmers and pledged to investigate this possibility.

Clinical and postmortem signs of bTB infection

Bovine TB is usually a slowly developing (chronic) disease, and infected animals may live for years before showing signs of disease. Most cases are discovered after the deer manager has culled what was considered to be a normal animal. Live deer usually show no outward signs of infection; animals with advanced disease may be in poor condition, have diarrhoea or may just be subdued and appear unwell.



THE CARDINAL SIGN OF bTB INFECTION IS INTERNAL ABSCESSATION.

bTB abscesses are very variable, from small, hard and "gritty" in consistency to large and fluid-filled. The pus in the abscesses may be pale, cream-coloured, orange or khaki.

bTB abscesses and pus do not have a foul smell.

Lymph nodes are frequently, but not invariably abscessed. The mesenteric, bronchial, mediastinal, hepatic, submaxillary and retro-pharyngeal nodes are often affected.

In advanced cases many different lymph nodes can be affected throughout the carcass and there may be abscesses or adhesions inside the chest and abdomen.

Abscesses within the lung tissue may not be visible when the pluck is removed; lungs should always be firmly palpated to feel for lumps in the substance of the lung tissue.

Enlarged lymph nodes and abscesses may also indicate other diseases, but the possibility of bTB should always be considered if abscesses are discovered.

Lymph nodes should not normally be cut open to check for infection. If a node is cut accidentally, sensible personal disinfection and hygiene procedures should be followed.

If a suspicious carcass is discovered it should be put in a leak proof bin or tray, covered to prevent scavenging or vermin interference and all organs, limbs and head retained with the carcass.

Reporting

- If you suspect bTB in deer you should isolate the carcass and notify APHA, who will provide guidance and may arrange for collection of the appropriate tissue samples for genetic analysis and bacteriological culture.
- Contact APHA via the Defra Rural Services Helpline on the following numbers:

England - **03000 200 301**

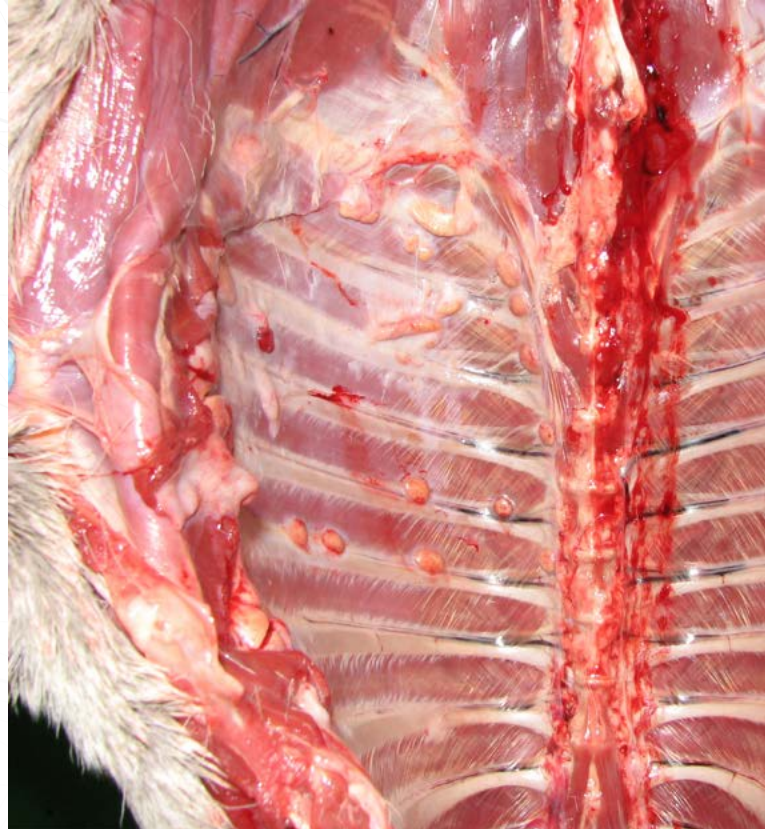
Wales - **0300 303 8268**

Meat hygiene

- Initially, isolate suspect carcasses from others to prevent contact and/or cross contamination.
- Keep the carcass in a chiller if possible, but isolated in a tray or bin, not hanging on the rail.
- The APHA veterinary inspector will advise if the carcass can enter the human food chain.
- DO NOT take a suspicious carcass to an Approved Game Handling Establishment (AGHE). Call APHA for advice.
- If a suspicious carcass is taken to an AGHE in ignorance or by mistake, the details of any abnormalities must be provided with the carcass on the carcass tag, as required by the Wild Game Meat Regulations and Guide (2022).

Bio-security

- If you find a suspect carcass, isolate it and suspend all work on that carcass until you have received advice from APHA.
- You should be wearing protective clothing that can be washed down and disinfected and be using disposable gloves that can be binned.
- You may continue processing other carcasses once you have thoroughly cleaned up yourself, your knives and your equipment and changed gloves.
- If sensible precautions are taken when handling a suspect carcass, the risk of bTB transmission to its handlers is very small.



Further Information

■ Notifiable diseases

<https://www.gov.uk/government/collections/notifiable-diseases-in-animals>

■ Bovine TB, Government guidance

<https://www.gov.uk/guidance/bovine-tb>

■ Defra Rural Services Helpline

England - **03000 200 301**
Wales - **0300 303 8268**

■ TB Hub

<https://tbhub.co.uk/> and <https://tbhub.co.uk/tb-in-wildlife/wild-deer/>