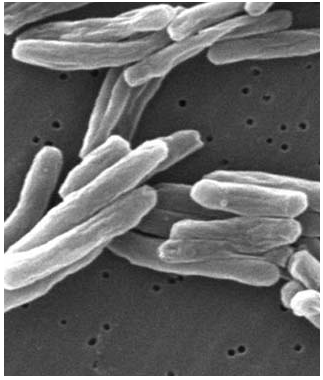
BPEX 2TS

HEALTH

Knowledge Transfer Bulletin

Health implications of bovine TB in pig populations



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This factsheet outlines the health implications of having Bovine Tuberculosis (bTB) in a pig herd and how it could have occurred. bTB is an emerging disease in pigs and we are still learning about routes of infection, outcomes for production and meaningful testing. Biosecurity is key to stopping any more incidents.Historically the UK pig industry has set an excellent standard of biosecurity and it should require little extra effort to include badgers and cattle in the list of disease vectors to be aware of when reviewing your biosecurity plans. bTB is a mycobacterial disease and its ability to infect many species makes it a very problematic disease. As well as cattle, some of the species bTB can infect include camelids, horses, badgers, cats, sheep, humans, wild boar, pigs and deer. For more information contact your herd vet.

Why is this emerging in pigs now?

Pigs are classed as a spill-over host. This means when levels of bTB circulating among wildlife and cattle in the local environment become very high, it literally spills over into other species, which are not usually infected with bTB. This situation is most likely to occur in bTB hot spots such as the South West and the Midlands but it is essential that all producers are vigilant due to 'off-site' and contract growing and finishing, and also pigs being moved between regions for finishing.

Look at how close other species are to your pig populations

How do pigs get bTB?

- bTB infected badger urine or mucus is the most likely route. This can contaminate farrowing beds so that when newborn piglets inhale into the bed or suckle they become infected.
- Another route of contamination includes home mill and mix units using grain from their own, or other, stores that has been contaminated by bTB infected badgers.
- Direct contact with other infected animals eg cattle, deer or wild boar
- Contaminated crops pre-harvest are not thought to be a likely source of infection.

The key to prevention is to prevent infected badgers and cattle from coming into contact with pigs or with pig feed. It is also important to understand that a large number of other species can be infected with bTB and to look at how close other species are to your pigs. This is particularly important in pedigree and small herds where nose to nose contact with other species is more common. UV light inactivates bTB but this is not a foolproof method of eliminating it.

Lymph gland - caseous/calcified lesions

How do I know if bTB is present on my unit?

Pigs rarely show any clinical signs of bTB and infection is usually not discovered until the pigs are slaughtered. UK legislation requires that all animals must be inspected for TB during routine post mortem meat inspection. If TB lesions are found in the lymph glands of the head, the head will be condemned. If suspect TB lesions are found in more than one part of the carcase site (eg head and chest) the whole carcase will be condemned.

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- Any suspicion of TB at meat inspection must be reported to Animal Health (it is a reportable disease).
- Samples will be submitted for TB culture and the producer will be informed that this has happened by Animal Health. TB culture can take up to 8 weeks to complete.
- Until recently the vast majority of incidents of TB in pigs were confirmed as being caused by *M. avium*- avian TB. More recently several incidents in the South West of England have been confirmed as *M. bovis*- bovine TB.
- This is a notifiable disease and Animal Health would normally impose some movement restriction on affected units. Usually however pigs can still be moved direct to slaughter under license.
- Currently there is no specific framework for bTB in pigs so regional Animal Health offices decide what happens in each individual case.
- Potentially there are 20 plus weeks of production that could face head or full condemnations after a first incident.
- Economic impact can be high, because of moderate to high level head or total condemnations over an extended period.

bTB lesions on chest wall

bTB lesions can be found throughout lung tissue

Is it possible to test for bTB in live pigs?

There are still major questions over which test to use for pigs as the skin test used in cattle was not designed for use in pigs and may lack sensitivity. At present however the skin test is the only test available and recognised for international trade/AI purposes.

Can you medicate bTB in pigs?

There are no options for medication in pigs. Due to the relatively low incidence no evidence is available to show a reduction in performance in affected herds or changes in eating or drinking behaviour. It is unlikely to have much of an effect because in normal commercial circumstances it is in a latent state, supressed in the lymph nodes.

Can pigs spread bTB to other pigs?

Pigs are usually very efficient at spreading respiratory diseases but TB acts differently due to it being latent in the pigs' lymph nodes for some time before more advanced lung disease occurs. It has been found that some pigs will be positive when herd mates, pen mates and progeny remain negative for the disease.

Pigs are unlikely to be very infectious in normal commercial situations due to their life span. However people who keep pigs for longer, and this will include some pedigree herds, smallholders and pet pig owners, could increase the risk of spreading infection to other pigs. Clinical signs of emaciation, with or without respiratory symptoms, may be seen in these more advanced cases.

Older pigs may present a more serious threat to other pigs

The Protection of Badgers Act 1992

Know the law. The act does not grant any rights, it creates various criminal offences – it is an offence to take, kill, injure or commit cruelty to badgers or interfere with badger setts.