



# **The Elephant In The Room**



Photograph Credit: Nick Sauntson

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**A scientific perspective on the badger/cattle TB issue  
and the remarkable failure of this Government  
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### **Cattle Testing**

Many farmers are aware of the deficiencies of the cattle TB testing regime in England. Some recognise the urgent need for improvement, some seem unaware, and some turn a blind eye and focus on culling badgers as a distraction.

Various estimates show that between 20% and 50% of infected cattle are missed by routine testing using the SICCT (Single Intradermal Comparative Cervical Tuberculin) test. The result is that Officially TB Free (OTF) status for farms is completely misleading.

This problem leads to continuing transmission within and between herds with the result that TB is now endemic in much of the SW England cattle population.

The Area Eradication Scheme of the 1950s worked but with a much tighter TB testing regime. Herds were potentially under restriction until they were attested free of disease, a designation granted only following multiple tests over a period of 2 to 4 years during which no reactors were revealed. Bio-security was a prerequisite – with double fencing on farm boundaries, cattle purchased only from other attested herds, enforced risk-based trading and the isolation and testing of purchased animals. In addition whole herd slaughter for persistently infected herds was considered necessary to stop TB spreading.

If anyone needs convincing that the SICCT test is failing to control bovine TB, consider the fact that a recent Parliamentary Question (PQ) revealed that 20% of OTF herds in England were found to be infected with TB when they reached slaughterhouse inspection! Meat inspection itself probably misses many positive cases.

By contrast, in Wales there was a 50% reduction in TB cattle slaughtered in just 5 years by the implementation of more rigorous testing. A Herd Health Check was followed by a programme of more regular testing and tighter cattle movement restrictions, and since 2009 there has also been a 30% fall in new herd incidents.

Most herds in Wales are now routinely Gamma tested, a supplementary test which improves overall sensitivity when used alongside the SICCT test. This is not so in England, where supplementary Gamma testing is being concentrated in the Edge Area and Low Risk Areas (LRA) and hardly used at all in the High Risk Areas(HRA). Another recent PQ revealed that between 2010 and 2015, £2.2m was spent Gamma testing in the LRAs and Edge areas in England, whereas just £180k was spent Gamma testing in the HRAs. Compare this to the £25m cost of badger culls in just 3 years! Has Defra abandoned the HRAs?

It should be appreciated that vaccines for either cattle or badgers are not a panacea. With cattle vaccination the main hurdles are political but these can be overcome with the necessary commitment. Oral vaccination of badgers is a promising prospect, with high rates of sero-conversion and evidence of herd immunity having been detected using an injectable badger vaccine. The vaccination of badgers is therefore viable, if there is a need after the problem of cattle-to-cattle TB transmission has been addressed.

## **Badger Culls**

Many people following this subject will be familiar with the term “perturbation”. This is used to describe the disruptive effect of badger culling that can actually exacerbate the spread of TB among both badgers and cattle. The precise mechanism is unclear but we see greater movement and raised TB prevalence in badgers remaining following a cull. In the past there has been anecdotal evidence of TB spread in cattle after badger culling, but not until the Randomised Badger Culling Trial (RBCT) did we see empirical evidence of a negative impact of culling. This resulted in the Independent Scientific Group that oversaw the trial concluding that “culling badgers can make no meaningful contribution to the control of TB in cattle in Britain”.

The Labour administration at the time made the scientifically sound decision not to cull badgers. The opposition parties promised they would and the topic became a political football rather than a science led management programme.

TB transmission routes are poorly understood. In a long term study of badger ecology and TB dynamics it was found that a very small proportion of annual adult badger mortality was due to TB, and this was in a relatively highly infected population. In the RBCT about 15% of badgers showed evidence of TB infection at post mortem examination out of a total of ca.11,000 badgers culled but with very few “super-excretors” (animals considered capable of onward transmission). The best scientific estimate we have shows that only 5.7% of cattle TB incidents are directly due to badgers. The rest are therefore down to cattle-to-cattle transmission.

The ecological evidence of the disruption that follows culling is compelling. There were winners and losers in the RBCT – culling can make the TB situation in cattle worse.

Badger culling is fraught with problems. It is extremely unpopular with the vast majority of people opposed to the culls. It is also extremely divisive in rural communities. It carries a massive cost - so far three years of culling in two pilot areas, and one year in an additional area in Dorset, have cost the tax payer over £25m. The rules have changed against the advice of a Defra Scientific Advisory Panel and independent scientists. The cull targets, whereby a minimum number of badgers are required to be killed to avoid potentially negative consequences, have been relaxed. Quite incredibly, culling may now take place over several months instead of just 12 days in the RBCT - the longer you cull, the greater and more extensive is the disruption; “controlled shooting” of badgers is allowed despite being condemned as inhumane by an Independent Expert Panel and the British Veterinary Association; it is conducted by non-professionals; the 70% compliance rule (the area of land available for culling within a licensed area) has been relaxed. The National Farmers Union is reputed to have asked for a massive reduction in compliance to just 25%! All these things in the opinion of independent scientists will be likely to increase the negative impacts of culling.

It is crucial to understand that it will not be possible to assess the impacts of the current badger culls on cattle TB. According to the Animal and Plant Health Agency’s Surveillance Report in 2014, there is no “evidence” of any impact so far despite claims to the contrary. There are

no proper controls in place and other measures, such as tailored farm biosecurity in the cull zones, are also being applied. The prediction of a meagre 12-16% relative reduction in cattle TB over 9 years has not changed but the changes in procedure are very likely to make things worse. You could not imagine a bigger mess.

## **Conclusion**

Badger culls cannot solve the cattle TB problem. They are nothing more than a political sop to farmers to appease them at a time when much stricter cattle controls are needed. They are an extremely expensive and indeed cynical way of using our native wildlife as a bargaining chip with the beleaguered farming community. They must stop and the failings of the cattle testing regime must be addressed for the future of this country's cattle farming industry.

There is indeed an elephant in the room and the government either cannot see it, or they are ignoring it for political ends.

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