

**Badger Trust response to:**

***Guidance to Natural England on licensed badger control to prevent the spread of bovine tuberculosis.***

***A consultation exercise contributing to the delivery of the Government's Strategy for achieving Officially Bovine Tuberculosis Free (OTF) status for England.***

**Please give us your views on the proposed approach to licensing, including the conditions of licensing, the discretion of Natural England's decision-taking and the licence period.**

**Approach** - The government's approach to licencing badger culling cannot be taken out of context of the general principle of culling badgers as a potential solution to the problem of bTB in cattle. The government relies heavily on the Randomised Badger Cull Trials (RBCT) and subsequent ISG report (Bourne *et al*) to support its claim of 'disease control benefit' yet ignores the very significant conclusions of the same report indicating that culling badgers can make 'no meaningful' contribution to the control of bTB in cattle or that in some circumstances cattle infections can become worse as a result of culling.

Extending culls is unscientific and the government and its veterinary advisors have produced no credible evidence to show that badger culls carried out so far have directly resulted in significant reductions in cattle TB in or around the cull zones.

Notwithstanding that, more recent scientific studies (Woodroffe, Donnelly *et al* 2016, Barbier *et al* 2016 etc.) are casting increasing doubt on the role of badgers in infecting cattle with bTB as it has now been proved that badgers actively avoid contact with cattle and that the only potential infection route is via environmental contamination, a process which cattle contribute more to than any other source, wildlife or otherwise. Whilst it is understood how badgers become infected by cattle it has never been clearly established how, and crucially to what extent, badgers could re-infect cattle.

In this context the government intention to licence further culls is inexplicable. The government is effectively cherry-picking science to fit it's policy rather than forming policy around the totality of science available.

More specifically there is a fundamental omission from the licencing process that has existed from the beginning of the 2013 'pilot' culls, namely that there is no requirement for licencees to produce any evidence of bTB infection in badgers or to establish any credible risk to known populations of cattle. That is to say there are no safeguards within the process to ensure that 10,2(a) of the Protection of Badgers Act, 1992 (... *for the purpose of preventing the spread of disease* ...) is being met and thereby ensuring that any culling is actually legal under the Act.

The government is effectively creating an indiscriminate 'general licence to cull' based on a 'general assumption' of disease control benefit based on a 'general presumption' of an unknown rate of infection risk to an unidentified population of

cattle. This is a dangerous 'house of cards' upon which to base a policy. Within the licencing process, which relies on individual landowners signing up for culling, it is therefore possible for significant portions of the cull zones to be made up of land where no cattle exist and where any risk from badgers (diseased or otherwise) is non-existent. The process allows for landowner/farmer participation in the culling exercise to be based simply on their 'desire' to cull badgers regardless of whether they keep cattle or not.

It is clear from the documentation accompanying the consultation that the sole aim of the proposed licencing is to reduce badger numbers rather than to control the spread of disease. All criteria mentioned with regard to the 'success' (or failure) of culling, or the conditions needed to be met before renewing 'supplementary licences' refer only to numbers of badgers killed. There is no question of the proposals being 'evidence based' as quite clearly they are not.

This is in stark contrast to the approach taken in Wales where no general cull of badgers has been deemed necessary (or appropriate) whilst comprehensive data is obtained from various initiatives including a badger vaccination programme in their Intensive Action Area (IAA) and the application of more rigorous cattle testing (including Gamma Interferon), bio-security advice and cattle movement controls. The Chief Veterinary Officer for Wales Christianne Glossop, has recently confirmed that new incidents of bovine TB are at a 10 year low in Wales and that 95% of Wales' cattle herds are now bTB free, a greater and faster reduction than in England generally and in the South West particularly.

***The Badger Trust is fundamentally opposed to the principle of culling badgers to control bTB in cattle, not just because it is inhumane, wasteful and disruptive to ecosystems but also because it is the least effective, most uncertain and least likely to succeed method of achieving that aim. What follows is therefore simply a critique of the government's current proposals and not in any way an endorsement of them.***

**Conditions** - Licences should only be granted on condition that the presence of bTB is clearly established in the badger population - to a set threshold - and that culling only takes place where there is a clear risk to identified populations of cattle.

All subsequent monitoring of culling should equally be based solely on disease control criteria and licences should be removed promptly where no disease control benefit has been established.

It is crucial that post mortem data on levels of bTB in culled badgers is obtained as otherwise it is impossible to estimate any kind of disease control benefit or even whether culling operations are removing diseased badgers.

Natural England must establish and state clear thresholds for initial and post culling infection rates in the badger population based on rational analysis of the likely impact of culling on disease reduction in cattle, and not issue licences where the risk either does not exist or is negligible.

Applicants should have to provide information on disease levels prior to and post culling via a recognised independent source, and to bear the cost of this themselves.

**Discretion** - The discretion allowed to Natural England to control this process seems to be limited by the stated possibility of intervention by the Secretary of State or the CVO, both of which are political appointments. It is therefore reasonable to infer that Natural England has very little discretion over the generalities or direction of the licencing scheme. Moreover, when referring to Natural England's responsibilities and potential actions under the scheme, the accompanying documentation only ever uses words such as 'should', 'could', or 'may' rather than 'must' or 'will'. It is impossible to determine to what extent Natural England will act on any of these obligations or even to what extent it actually could.

Like every other government department, DEFRA and therefore Natural England, have been subject to continuous cuts in budgets and human resources so it is reasonable to assume that much of what is expected of it under the proposed scheme will be beyond its capacity to deliver. The documentation is cleverly worded to give the appearance of effective discretion and control to Natural England but it is clear that in the absence of proper resources and the requirement for definitive, independent evidence of success or failure, that it is the licencees (landowners, farmers and industry backed cull contractors) who have effective control of the process, backed up by the political establishment.

**Licence period** – The Badger Trust has long been of the opinion that the current government, urged on by the farming and countryside lobby, have wished to permanently nullify the statutory protection of badgers by introducing a licencing system that effectively allows an on-going consent to cull badgers 'as desired' by landowners and farmers. The proposals outlined in this consultation achieve exactly that.

As stated above, the proposals concentrate exclusively on reducing badger numbers and explicitly exclude any meaningful requirement or method to demonstrate or achieve a measurable decrease in bTB in cattle. The public has a right to believe that it has been gratuitously misled by the government over the original nature and intention of the 'pilot culls' introduced in 2013. By allowing 'supplementary' extensions to culling any pretence that the pilot culls were there to establish the safety, practicality and humaneness of 'free shooting' is rendered false.

The existing licencing conditions already allow considerable scope to extend culling way beyond the time limits established by the RBCT as key to ensuring any kind of success in disease reduction (8-11 days). The pilot culls allowed six weeks plus extensions granted in 2013, which already represents a significant departure from the RBCT methodology. Alterations to the licencing in 2015/16 allowed the possibility of open ended extensions to culling based purely on numbers of badgers killed. The current proposals make it clear that the duration of culling is primarily determined by what is '*realistically deliverable by the culling company*'.

The proposed supplementary extension scheme opens the way for culling badgers 'in perpetuity' as the criteria for reapplying at the end of every four or five year period preclude any practical or effective method for determining 'success' or 'failure' beyond a very simplistic calculation of badger numbers. There is in effect no 'licencing period'.

**Please give us your views on the proposed plans to ensure that badger welfare is maintained, including views on the most appropriate time limit for badger control within the open season.**

**Badger welfare** - The continued licensing of controlled shooting is considered inhumane by both the government's own Independent Expert Panel and the British Veterinary Association. There is no evidence to suggest that the accuracy of 'controlled shooting' and the associated welfare concerns have been addressed through the four years of badger culls conducted to date.

Independent oversight of cull contractors to assess and evaluate welfare impacts has been markedly reduced throughout the period of culling between 2012 - 2016. The proposed levels of independent monitoring can give no confidence that welfare concerns can be allayed during any supplementary culls.

Natural England has provided insufficient information within the proposal to show how the extended culling licences will be monitored. It is unclear if the current level of monitoring will be maintained and if badger carcass sampling undertaken by the Animal Plant Health Agency (APHA) will be sufficient to monitor the competence of the shooters involved in culling operations.

The Badger Trust has no confidence in any form of self-reporting by culling contractors who have a vested interest in achieving license conditions, target numbers and income levels, which are likely to override any concerns on the issue of animal welfare. The possibility of an incentive to conceal shooting errors and incidences of cruelty and suffering caused by incompetence is too great to rely on the honesty of contractors.

This is highlighted by the report of the 2016 culls where a significant disparity was noted between the percentages of badgers shot at and missed (or not retrieved) as observed by Natural England's observers (8% and 2.7% respectively) and those reported by the cull companies (0.58% and 0.24%).

The Chief Veterinary Officer's view that the "*likelihood of suffering in badgers culled by controlled shooting is comparable with the range of outcomes reported when other culling activities accepted by society are carried out*" is not accepted by the Badger Trust.

Comparisons between killing badgers and other wildlife species such as deer are inappropriate as there is little information in the public domain on shooting methods employed, competence of the shooters or the animal welfare outcomes. Research has shown that even skilled marksmen often have to shoot a deer twice to kill the animal.

Badgers are much smaller than deer but are powerful, muscular creatures that are low to the ground. The effective kill zone on a badger to ensure humane dispatch is the size of a tennis ball. As foragers, badgers are rarely stationary long enough to line up a clean shot on such a small target area so close to the ground. Unlike other species of animal subject to shooting, badgers are nocturnal so they can only be shot at night. Even with the latest Generation 3 NightVision sights it is difficult to make out

a badger's position and movements sufficiently to ensure shooting remains reliably humane.

This situation is compounded by the licence allowing the use of .22 (centre fire) rounds at a distance of up to 150m. The lack of weight (and therefore inertia) in such a small round means it decelerates so rapidly at such distances that it lacks sufficient impact energy to make a clean kill. This results in an increased likelihood of wounding and the necessity for taking multiple shots. It also increases the risk of a badly shot badger being able to run away before another shot can be fired, resulting in a slow painful death elsewhere.

From the limited amount of monitoring of cull contractors carried out to date, we know that many badgers have taken over five minutes to die of multiple bullet wounds, blood loss and organ failure. The proposed increase in culling by farmers and landowners with little or no independent monitoring (and scant training) is likely to result in a significant increase in the number of badgers suffering long painful deaths.

More generally, in the context of any kind of shooting be it with a shotgun (cage-trap and shoot) or by rifle, the concept of 'animal welfare' is hard to reconcile particularly when so few of the badgers to be killed will be bTB positive, let alone infectious.

***Time limits within open season*** – As mentioned elsewhere, the timing achieved by the RBCT was 8-11 days of concurrent culling over the entire triplet area (cull zone). This is the benchmark for achieving the claimed disease reductions observed in the Proactive triplet areas and relied on by the government to justify both the 'pilot' culls and now the proposed 'supplementary' cull licences. Clearly what has been licenced so far and what is now proposed falls way short of the optimal RBCT methodology so, at the very least, we can expect sub-optimal results to occur.

The proposed licencing conditions allow for no effective 'time limit' on culling as they can be extended at the nominal discretion of Natural England (backed up by the threat of intervention by the Secretary of State and the CVO). Again this is based entirely on numbers of badgers killed rather than on any confirmed reduction in the incidence of cattle bTB.

Despite claims to the contrary, there is a high probability with the new licencing arrangements allowing so much time for culling, that the conditions experienced in the RBCT's Reactive triplet areas will be recreated resulting in the likelihood of increasing the incidence of bTB in cattle via perturbation. The government cannot claim with any credibility that the disease control benefits of one part of the RBCT are applicable whilst the disbenefits of other parts of it are not.

**Please give us your views on how Natural England should evaluate the effectiveness of supplementary badger control over the five-year licence period to ensure it meets the aim of keeping the population at the level required to ensure effective disease control benefits are prolonged.**

This question is largely hypothetical, if not entirely rhetorical given that Natural England does not have the resources or even the opportunity to effectively monitor the proposed culls, let alone evaluate their effectiveness. Ultimately, responsibility for providing information resides with the culling companies who have a vested interest in supplying only that information which will guarantee they can continue culling badgers.

All estimates of badger populations are to be supplied by the cull companies via 'sett surveys' conducted by participating landowners and farmers. These are known to be less than satisfactory in terms of their accuracy (Natural England advice to DEFRA, 2011). Likewise any declarations of numbers of badgers killed will have to be taken 'on trust' so unless Natural England is given the responsibility (and resources) to undertake this work independently of the cull companies and in its entirety then there is no way they can monitor or ensure that the culls are keeping populations at desired levels.

By the same token, any evaluation of the disease control benefits would require a huge amount of detailed localised data on previous history of cattle disease, genetic susceptibility of cattle to bTB, types of farm, numbers of cattle, numbers of farms, cattle movements, frequency of testing, use of gamma interferon tests, changes in bio-security measures, prevalence of disease in badgers over time, prevalence of disease in other wildlife or human vectors over time, topographical variations and many other potential confounding covariates. These would then have to be applied to both the cull areas and sufficiently equivalent 'control' zones where no culling took place.

This is in fact a task that has never been undertaken successfully by any government department. Even the hugely expensive RBCT had to limit this aspect of its work to a small number of confounding covariates in order to produce a conclusion, so it is hardly realistic to suggest that Natural England has the resources or expertise to succeed where all others have failed. And in any case, as raised elsewhere, without testing badgers for bTB either pre- or post-mortem it is simply impossible to know whether any culling scheme has had any effect whatsoever on levels of bTB in cattle.

The government and DEFRA are well aware of this, so it is again interesting to note that the accompanying documents to the consultation give an impression that they are safeguarding the process with 'monitoring and evaluation' whereas the truth is completely the opposite. It is tempting to speculate on whether or not this is deliberate.

The government has 'form' in this regard in respect of its response to the IEP report into the 2013 culls. Having unsuccessfully tried to persuade the Panel to alter its findings to minimise the levels of inhumaneness recorded against the agreed standard, the government disbanded the IEP, ignored all its adverse findings and put an end to any further effective monitoring of future culls.

There is a clear incentive to steer away from hard facts about culling as there is a danger that they may prove it doesn't reduce disease in cattle at all. It is easier to infer an 'apparent truth' from a specially selected set of 'alternative facts' plucked from a confusion of unrelated data. The decision to only apply Gamma Interferon testing to areas in the HRA where culling is taking place may be another case in point where it is intended to falsely link the known disease reducing effect of the test with culling instead. We will have to wait and see.

**Recommendations** - If the government are serious about Natural England effectively monitoring badger populations and disease control then they must give them adequate resources and personnel to conduct accurate, independent badger population surveys both before and after the cull. They must be allowed to establish accurate, independent estimates of disease prevalence in badgers pre- and post-mortem. They need to create 'no cull' control zones that are as close as possible in every respect to the cull zones and then gather every other piece of farm level data on cattle, farm types, farming and trading practices, and topographical information so that a proper, scientific analysis can be attempted in order to determine a result.

Any attempt to claim a conclusion without doing all of the above would be at best a guess and at worst deliberate propaganda.

### **Additional comments**

**Control of bovine TB is out of proportion to risk** - The bovine TB control policy is based on an eradication of the organism from the environment and susceptible species, which is just not achievable.

The policy, which involves the slaughter of thousands of cattle and now the widespread indiscriminate slaughter of tens of thousands of badgers, is out of all proportion to the public health risk and is in the view of the Badger Trust unlikely to prevent the continued presence of the TB organism in the environment.

The 25 year strategy fails to include a sustainable and cost effective plan to bring the prevalence of bovine TB down to the level required to gain EU Officially Bovine TB Free Status (OFT). In the absence of an effective means of controlling bovine TB the Government's public commitment to achieve this target has resulted in increased level of badger killing, which could result in the removal of the species from large parts of England.

The exit of the UK from the European Union offers the Government the opportunity to seek an alternative approach which addresses the public health risks associated with bovine TB via heat treatment of dairy products, appropriate meat hygiene and an increasing focus on livestock farmers protecting the health of their cattle via good husbandry practices. We understand such a policy has been proposed previously and the Badger Trust believes post Brexit it should be considered again.

**Absence of evidence questioning for transmission of bovine TB from badgers to cattle** - The Badger Trust notes that there is no direct, credible evidence for exactly how and to what extent the badgers infect cattle with bovine TB. Direct attempts to infect cattle experimentally using infected badgers have proven to take unrealistically long and were conducted under wholly artificial conditions. To date 'probable cause' has been inferred by statistical analysis of various culling trials rather than by direct observations of clinical evidence. This work is ongoing and

previous estimates have been continually rounded down from c.50% of cattle infections being 'attributed' to badgers to the current estimate of c.5%.

Furthermore, research over the last few years (DARD NI) Mullen, Donnelly & Woodroffe *et al*) has shown that badgers specifically avoid direct contact with cattle in pasture and buildings, and that the only possible infection path between the two species is via their shared environment. Equally research by Barbier *et al*, 2016 has confirmed the potential for bovine TB to be maintained for significant time in the earthworm population, so consideration of the problem in invertebrates must also be noted. It is also clear that cattle are the origin of extensive contamination of their own environment and that this covers a broad spectrum of potential re-infection vectors that must also include cattle themselves.

The Badger Trust is confident that with sufficient further research the current estimate of c.5% of cattle infections being attributed to badgers is likely to be reduced to less than 1%.

**Cost to the taxpayer** – Given even the current estimate of c.5% of cattle infections being attributed to badgers it is clear that the sheer cost of culling badgers is not worth the investment. This is especially true given the low levels of disease benefit estimated by the most optimistic predictions - a precariously uncertain 16% reduction over nine years. The time, effort and resources needed to achieve even this could be far more effectively deployed on alternative interventions known to produce results faster and more cheaply, as are being used to great effect in Wales.

Consideration must also be given to the fact that as bTB rates fall (due to cattle measures) badger culling would have even less impact than the current theoretical 16% reduction yet the costs of culling will remain the same if the current methods are not adjusted according to accurate data on rates of disease in badgers. At some point even the theoretical 'benefit' of culling will reach zero and 100% of the money being spent will be wasted.

Notwithstanding the current era of 'austerity', it is hardly reasonable to expect the taxpayer to pick up the bill for such an inefficient and ineffective enterprise when there are so many cheaper, faster and more effective alternatives.

**Selection of cull areas and assessing the impact of culls** - The only disease related criteria put forward for new cull licences is that the areas must lie within the High Risk or Edge areas on the basis that the disease risk to cattle is uniform across these areas. However, this is not the case as there are many areas within the High Risk areas where the prevalence of TB in cattle is low and much of the Edge Area is hardly affected by bovine TB at all.

Licensing the killing of badgers in areas of low bovine TB incidence such as West Dorset indicates that the policy is not targeted at areas of greatest prevalence and that the willingness of land owners or occupiers to kill badgers is given more weight, than the disease benefits of controlling bTB.

The proposals have no provision for the removal of supplementary culling licences if the level of bTB in cattle falls below a certain level, which is a serious omission. The proposal is put forward as a 'disease control measure' but, without an end point that

relates to disease control success, this claim is disingenuous. As it stands the proposal would allow the indefinite killing of badgers regardless of the success or failure of bovine TB control in the areas concerned.

The proposal also fails to take account of the limitations of the cattle testing regime, persistent undetected infection within cattle herds, and the continued intensification of the cattle industry. Comparisons with the situation in New Zealand and the United States are irrelevant and misleading, since the identified wildlife reservoirs involve very different species and the direct or indirect interaction between these species and domestic cattle will be very different. Also the badger culling policy cannot be objectively evaluated in terms of disease control outcomes, because it is taking place concurrently with changes to cattle testing and control methods.

### ***Monitoring badger populations and impact of culling on badger colonies -***

Extending culling periods render any reliance on previous trial results invalid and risks extending the disruption of badger communities over a longer period, increasing stress to surviving individuals and possibly risking increased badger perturbation.

In terms of keeping the badger population at the 'required level', Natural England's methods of evaluating badger populations and setting minimum and maximum cull quotas are deeply flawed and subject to huge margins of error.

Sett-based surveys will become increasingly unreliable within areas in which culling has taken place already over a number of years because of the disruption of badger colonies within those areas and the unpredictable nature of the perturbation that could result.

***Impact of reducing badgers on the predation of other species -*** Reducing carnivore populations can have a significant impact on the environment as can be seen by the removal of the grey wolf from 48 states in the United States.

The badger is primarily an opportunistic forager (Neal and Cheeseman 1996). In the South of the UK earthworms appear to be most important food item for badgers in terms of frequency of occurrence and biomass (Neal and Cheeseman 1996). A range of mammal species has been seen to occur in the badger's diet, including rodents (voles, mice and rats), insectivores (moles and shrews) and lagomorphs (rabbits and hares). However badgers also compete for food with other species such as foxes and therefore badger removal may have knock on effects beyond reductions in direct predation through changes in abundance of competitor species, and consequently their prey (Trewby et al 2008).

For example a removal of badgers could increase fox, stoat and weasel numbers, which could have an increasingly negative impact on ground nesting birds.

Removal of badgers during the Randomised Badger Culling Trial precipitated a change in the abundance of species that may have a greater and more direct role in the predation of ground nesting birds than badgers. Fox abundance increased significantly in certain areas in response to badger culling. Such effects and the corresponding increase predation pressure could have a significant adverse impact of the survival and nests of ground nesting birds.

**Bern Convention** - The Government's proposals to issue supplementary licenses could well place it in breach of its Commitments under Article 8 of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention). This states that "*Contracting Parties shall prohibit the use of all indiscriminate means of capture and killing and the use of all means capable of causing local disappearance of, or serious disturbance to, populations of a species [applies to Appendix III species which includes badgers]*", and under Article 9 which allows exceptions for disease control purposes providing the controls "*will not be detrimental to the survival of the population concerned*".

**Area Eradication Strategy** - In response to the previous bovine TB crisis in the late 1950s, the Government introduced the 'Area Eradication Strategy', which focussed on strict cattle measures and was successful in reducing bovine TB to a low level within a few years, at a time before it was even known that badgers could contract bovine TB.

The Welsh Government has adopted a similar strategy in recent years, and has to date been more successful than England in reducing bovine TB in cattle, without killing badgers. The Government should take careful note of these strategies.

The Government's proposals to issue 5-year 'supplementary licenses' amount to little more than the introduction of a general licensing system for the culling of a protected species without a specified 'end point'.

**Increase in illegal persecution of badgers** - The Government is effectively proposing to pass the responsibility for the management of a protected wildlife species to farmers, landowners and their contractors, many of whom have vested interests and attitudes that are incompatible with wildlife protection and species conservation.

Despite having protection under the law the badger is one of the most persecuted wildlife species in the UK. Badger baiting remains a major problem in many parts of the UK and badgers are increasingly being targeted by fox hunts. Building developers are also proving to be a significant and growing problem. The demonisation of the species by the government and farming lobby to justify the badger cull policy has also led to an increase in illegal killing of badger by farmers and land owners

By giving farmers and landowners local licences to control badger numbers with little or no independent monitoring, the government is effectively giving a green light to those who wish to illegally persecute the species. The consultation document does not identify any means for detecting or preventing illegal culling outside of the licence agreement, which means that with the combination of large-scale indiscriminate badger culling and an increase in illegal badger persecution, there is a very real possibility could of local extinctions of badgers from many parts of England within the next decade.

**Self-regulation** – The proposals outlined in the consultation are unacceptably reliant on self-regulation by the culling companies, farmers and landowners. Over the last forty years, in all walks of life, self-regulation has proved time and time again to be wholly unreliable. Self regulation effectively means no regulation at all.

In the case of the proposals outlined in this document it is clear that a great deal of honesty and accuracy will be demanded from the cullers whilst leaving the authorities little scope to regulate other than by trust. This is not acceptable given the history of the farming community over the years with a case in point being the exceptional levels of fraudulent claims made during the BSE and Foot & Mouth crises. Unless the government insists on proper monitoring and verification of all data and activities during its proposed supplementary culls then the public can have no confidence whatsoever that badger populations will be preserved or excessive cruelty avoided. Equally, neither the government nor the public can have any confidence whatsoever in any estimated outcomes in terms of disease control benefit.

**Exaggerated claims regarding the seriousness of bTB in cattle** – The consultation document repeats a number of false claims regarding the seriousness of bTB in cattle to the both the industry and the public. For example, it claims “*The disease is the most pressing and costly animal health problem in the UK. It threatens our cattle industry and presents a risk to other livestock, wildlife, pets and humans.*”

This is not only propaganda but contains blatant falsehoods. In terms of cattle mortality the government’s own figures reveal that twenty times more cattle are slaughtered due to infertility than to bTB, and seven times more are slaughtered due to laminitis and mastitis. The cattle industry is subject to a broad spectrum of infectious diseases too long to list here but which all cattle farmers must deal with on a daily basis. bTB is just one of these. In a recent study of ‘fallen stock’ conducted by Eblex bTB did not feature at all in a list of twenty disease based causes of death on farms.

Whilst there are clear financial implications for the cattle industry it has clearly survived three decades of the current TB crisis without going bust, largely because of generous government subsidies and compensation. The risk ‘presented’ to other livestock, wildlife, pets and humans is negligible in terms of rates of infection or serious illness. All milk sold is compulsorily pasteurised and meat cooked, which is why bTB infected cattle carcasses pass unrestricted into the food chain. Levels of bTB in humans are negligibly low and confined mostly to farm workers and people returning from trips abroad to countries where bTB is rife.

Similarly, the government is fond of citing other countries in its defence of culling, claiming “*no other country has successfully eradicated bTB without tackling the disease in wildlife.*” This again is grossly misleading in that countries such as the US, Australia and NZ have identified bTB in wildlife species completely different to badgers both in size, distribution and habitation. Notwithstanding that, after a nine year study NZ authorities discovered rates of bTB infection in their non-native possums to be a fraction of 1% (17 out of 10,930 tested in 2014/15).

It remains a fact that the UK reduced bTB to less than 1% during the Area Eradication Strategy in the 1950s/60s without tackling wildlife (bTB wasn’t discovered in badgers until 1971), Wales is well on the way to eradicating bTB without culling badgers, Northern Ireland is testing a targeted culling strategy (TVR) without a

general cull and Scotland whilst technically bTB free would almost certainly not introduce a cull should the disease emerge there. Even the Republic of Ireland where a comprehensive culling strategy was implemented has come to realise the limitations of culling and is about to switch to badger vaccination instead.

The truth is that Westminster and the English farming lobby are becoming increasingly isolated in their support for badger culling as the science and economics of the policy increasingly point to its ineffectiveness and unsuitability for reducing bTB in cattle.

It is well past time for the government and its departments to come clean with both the public and the farming industry and to start telling the truth about bovine TB and the proper ways to bring it under control. There is a long history of disbelief amongst the farming lobby (and even some scientists) regarding the extent to which cattle infect themselves not only via direct contact but also via the environment they themselves contaminate. On top of this the government has failed to own up to the severe limitations of the SICCT skin test and failed to implement a rational strategy for combatting the disease through better testing, risk-based trading and bio-security advice.

Instead of taking steps to dispel these misapprehensions the government has sought only to weakly placate and appease its rural backers and supporters by fanning the flames of the badger blame game because it is easier all round not to challenge ignorance and myth when the truth is that it is government incompetence and the way cattle are farmed and traded that is the real problem with bTB.

The government is fond of saying it must use 'every tool in the box' to combat this disease but as anyone practical knows, you have to use the right tool for the job. Culling badgers is like trying to hammer in a nail with a saw - it is the wrong tool for the job.

Badger Trust

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