

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

I am assuming that what is meant by the proposed approach to licensing is that licences should be issued to those groups who have previously been involved in the cull, or new groups of landowners and farmers who show interest, and that the licences should be issued for a five year period.

Who bears the costs under this plan?

How are these groups assessed and what are the parameters used to judge if they are suitable? For example, in the Best Practice Guide it states: "*During periods when culling is permitted, where an operator has reason to suspect that an animal may be a lactating sow with dependent cubs, the animal must not be shot.*" How is this monitored? How can a group be assessed on whether they have complied with this, or will comply?

The Best Practice Guide also says: "*The Shooter must be able to accurately identify the target and confidently locate the heart-lung target area on the badger's body. Identification of a target by eye-shine alone is unacceptable and must never be relied upon. The Shooter must have a clear view, so as to make a clean and lethal shot, and be certain of the safety of taking the shot.*". How is this monitored to ensure compliance?

The Best Practice Guide then says: "*A badger must only be selected to be shot if it is at least 25 metres away from the nearest sett and far enough from dense cover, where a badger might be lost, to avoid the risk of a wounded animal getting away.*" Again, how can compliance be assured and how can it be confirmed that a group did comply?

There are many other examples of requirements that cannot be monitored without a third party observer present at all shootings. As this does not happen, it is not possible to monitor compliance with best practice. Therefore NE are in no position to judge if a company has complied or will comply. This means the licence conditions cannot be monitored and are meaningless.

With regard to competence of the shooters, the guidance says: "*Successful completion of a training course approved by Government will be taken as proof of competence.*" Yet field conditions will be very different from a training course. Without regular in-situ monitoring, how can the public have confidence that the shooters are genuinely competent in the field?

The accompanying document says "*Enabling a voluntary farmer or landowner-led operation to continue would draw on the expertise accumulated over the prior culling operation, as the farmers and landowners would be experienced and know their area well.*"

What expertise? There has been little or no reliable and comprehensive independent monitoring of what these "companies" have been up to. The figures they produce cannot be substantiated. The methods used and humaneness of these methods cannot be verified. What evidence do you have that they have actually shot the number of badgers they claim?

Why issue licences for 5 years? What is the scientific basis for a 5 year period of so-called supplementary control?

How will the performance of the culling group be monitored during this period? How will their compliance with best practice be monitored?

What information will be used to judge whether to renew the licence after five years?

Will the renewals continue in perpetuity?

In the guidance it suggests *“the licence may, however, be revoked if appropriate following a progress evaluation or on reasonable grounds.”* How frequently will progress evaluations be undertaken? What criteria will they use to judge progress? What would constitute reasonable grounds for revocation?

Given that *“To be effective, culling should maintain the population at the level achieved after the prior cull, by removing each year the minimum number of badgers set by Natural England and not exceeding the maximum number set”*, the population figures for the area needed to be established accurately and reliably at the outset of the cull, then continually monitored to ensure they do not fall below an agreed minimum. All the data relating to this should be transparent and publicly available.

When is cessation of culling likely to happen? These measures carry the suggestion that culling will have to be continual so as to maintain the population at the artificially low level it has been reduced to. Given this, then badger behaviour could be reasonably expected to change considerably and in unexpected ways. This could increase the risk of TB transmission rather than reduce it.

This proposal is for continual culling with no end-date and no clear goal. Although the guidance says *“Natural England should aim to ensure that Supplementary Badger Disease Control will “not be detrimental to the survival of the population concerned” within the meaning of Article 9 of the Convention on the Conservation of European Wildlife and Natural Habitats”*, and that this requires that they *“set a maximum number of badgers to be removed from the licence area”*, without reliable and accurate figures from the outset this is impossible. Therefore, given the population figures have consistently been shown to be inaccurate, it is not possible for NE to ensure compliance with the Bern convention.

It is self-confessedly based on no evidence (paragraph 3.10 of the Defra proposal document: *3.10 There is no evidence on the effects of longer-term control of badgers in areas that have completed a four-year culling period*) and provides no information on what badger population level would be considered safe from a TB perspective.

If the aim were to reduce the incidence of TB in badgers to a level where it could not act as a reservoir for infecting cattle, then some sort of testing regime would need to be introduced to establish what the existing level of TB in badgers is, and then what the level becomes after the initial 4 year cull, and how it changes during the subsequent “supplementary control” period. No such proposal has been made. There is no reliable benchmark for TB levels in badgers, and therefore this entire argument is unscientific and not based on any data.

In the accompanying document it says: *4.6 Any supplementary badger control licence would not need to replicate some of the licensing requirements for a completed, four-year cull, e.g. a specified level of signup with complex access agreements and full upfront funding, because of the reduced risk of perturbation.*

Please be specific. Exactly which requirements would be dropped? Access to most of the area is required according to the evidence for any suggestion of “effectiveness”. Less than almost full access makes the whole process even more pointless. In fact, there is a strong risk of increasing the TB problem as indicated by the evidence from the RBCT.

Full upfront funding must be required, or there is a strong risk that it will once again fall to the taxpayer to make up the shortfall.

Given the statement in section 3.10 that *there is no evidence*, it is difficult to know why there is a claim there will be a reduced risk of perturbation. That is unknown, so cannot be used as a justification for dropping the requirements. In fact, evidence from the RBCT suggests there would be an increased risk of perturbation within the cull areas.

In the accompanying document, section 4.4 it says “*Applications for a licence would only be considered if the prior cull was judged effective in achieving a population reduction likely to reduce disease transmission to cattle.*”.

What are the criteria for judging a cull effective? What is the population reduction required? How would you know if this were achieved given you had no reliable or even believable figures for the populations before any shooting? The Independent Expert Panel found the initial culls to be ineffective at reducing population levels to the intended level.

Since the level “*likely to reduce disease transmission to cattle*” is dependent on accurate and reliable figures for the initial population, accurate and reliable figures for the number culled, and accurate and reliable figures for the number surviving at the end of the four year cull, and none of these are available, it is impossible to understand how NE would be able to make this judgement in any scientifically rigorous way.

7. 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.

The most appropriate time limit is 12 months a year given the status of the badger as a protected species and our most popular and iconic mammal. However, given that is unlikely to hold sway, clearly the period between 1 December and 31st July when badgers are less active and have cubs is the minimum close season. Badger cubs are not truly independent until well into summer, so killing their mothers during the time they are dependent will negatively impact upon their welfare.

Free shooting is known to be inhumane. The British Veterinary Association said (BVA Council position on the pilot badger culls and badger culling policy in England April 2015) “*In light of the results following the second year of culling, BVA believes that it has not*

been demonstrated conclusively that controlled shooting can be carried out effectively and humanely based on the criteria that were set for the pilots. Nor are we confident that the effectiveness and humaneness can be significantly further improved, despite Defra's assurances after the first year of culling. We therefore do not support the continued use of controlled shooting as part of the badger control policy." It is therefore shocking that DEFRA is considering continuing with this method, and that the CVO is sanctioning it.

In the interests of animal welfare, free shooting should be banned.

As for cage trapping. Having trapped a badger it is just as simple to vaccinate it as to shoot it, with the added benefit that it will not frighten or disturb the other badgers, and it will keep their social structure intact, preventing perturbation. Therefore instead of cage shooting, there should be a vaccination programme. This is far cheaper, more effective in the long term, and would be much more acceptable to the general public. It would have the support of most scientists and conservationists.

8. 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 that it meets the aim of keeping the population at the level required to ensure that effective disease control benefits are prolonged.

NE is struggling with its current workload. Unless considerably more resources are dedicated to this purpose, it is impossible to believe that NE is capable of evaluating the effectiveness of this. Once again this requires reliable benchmarking and comprehensive and frequent on-site monitoring. There also needs to be some independent oversight, given NE is a part of DEFRA and so has a conflict of interest. There is no incentive for NE to revoke licences or find the control ineffective, on the contrary, it would be awkward and embarrassing for the government.

The CVO described the methodology for establishing the badger population very clearly and succinctly in his *"advice on the outcome of the 2016 badger culls"*:

"A consistent methodology was used to update the minimum and maximum numbers, based on the cumulative effort applied and numbers of badgers culled over 35 days in six areas and over 33 days in one area."

By which I understand that the number of badgers was estimated by the number they were able to kill over a given period. I would be interested to see the scientific evidence for this method producing an accurate figure for the population.

Is this figure used to establish both the original pre-cull population and the post-cull one? I would be intrigued to learn by what statistical method this will be achieved. Will it also yield the figure for *"the level required to ensure that effective disease control benefits are prolonged"*? What is this level? How will you know when it is reached? How will you ensure it is not surpassed? What arrangements will be in place to ensure local extinction does not occur?

How will NE evaluate the effectiveness of supplementary control? What exactly will they do to measure this? How and when will NE know when control is “effective”? What are the definitions and parameters involved?

DEFRA has defined effective control as reducing the badger numbers by at least 70%. Without reliable and accurate figures for the original population (i.e. the 100% figure) how can this be known? It also requires accurate figures for the number culled, and a final count to allow for dispersal, natural death, road kill, illegal killing and other reductions. It was clearly shown by the need to revise figures during the 2016 cull, that initial population estimates were wrong. Thus there can be no confidence in the accuracy of initial population figures, nor, because of inadequate independent monitoring, in the figures culled. To put it simply, if the original population was X and the culled number was Y, and other reductions were Z, and all of these figures are uncertain, it is impossible to judge the efficacy of the culls, or of any subsequent culls in the location.

In the accompanying DEFRA document, it says: *3.10 There is no evidence on the effects of longer-term control of badgers in areas that have completed a four-year culling period.* If there is **no evidence**, why do you make the claim that this approach will produce disease control benefits?

The document goes on to claim that maintaining the badger population at the post-cull level “*is the only available means of maintaining the reduced potential for infectious contacts between badgers and cattle*”. The evidence for infectious contacts is poor to non-existent. No transmission route in vivo has been proven. This also ignores the vaccination programme used in Wales, and planned for Ireland. There is no mention of the vaccination trial run over several years in Gloucestershire by the AVHL. The BVA report said: “*in the long term, vaccination of both badgers and cattle can and should play an important role in any bTB eradication strategy. In the meantime we fully support deployment of the existing injectable badger vaccine at the edge of endemic bTB areas to mitigate the spread of the disease into low risk areas*”.

Vaccination is an alternative and it is available. Why not use it?

They also recommended: *Research and development (including of improved diagnostic tests, cattle vaccine, oral badger vaccine, and humane badger population control methodologies)* . Why is DEFRA not pursuing this rather than continuing with the controversial and unscientific cull using inhumane methods?