

# Badgers and Bovine Tuberculosis

New course at the University of Essex

This autumn law undergraduates at the University of Essex will be offered to gain insight into animal law through a new module 'Animal Welfare and Wildlife Law.' The aim of this ambitious and in-depth course is to explore the legal issues that surround the use and treatment of animals by humans and the degree of legal protection that is afforded to animals by the law. The pre-established categories of domestic (companion, working, scientific, food) and wild animals (food, exhibit, bio-capture, pure wild) will be scrutinized in detail from various philosophical points of view to gain insight into the basis of laws. Through this course the students will acquire a deeper understanding of legislation, case law, EU laws as well as international laws applicable to each category of animals. Participant students will also learn about the role that relevant government departments, treaty bodies, NGO's and charities play in the field of animal welfare. Please contact Dr Darren Calley at the School of Law, the University of Essex, Wivenhoe Park, Colchester, Essex, CO4 3SQ, or email [dscall@essex.ac.uk](mailto:dscall@essex.ac.uk) for more information.

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## **A Response to the Coalition Government Consultation on tackling the disease and a badger control policy<sup>1</sup>**

**B**ovine tuberculosis is a virulent disease, which is still running out of control in the UK. It attacks the cattle herds. More controversially, it is argued that there is in addition, a wildlife reservoir, which, in the UK is to be found in the badger population. Indeed, Australia has achieved TB eradication through stringent cattle controls combined with a central programme targeting wildlife<sup>2</sup>. New Zealand too has achieved substantial progress by this method<sup>3</sup>. Therefore the disease in both these sources must be tackled if there is to be a final resolution of this problem.

However, the situation in New Zealand must be distinguished from that in the UK in that the wildlife reserve in New Zealand is to be found in an invasive non-native species, the Australian brushtail possum, while the badger is not only an indigenous species in the UK, it is also protected. Although not sufficiently rare to be included on Schedule 5 Wildlife and Countryside Act 1981<sup>4</sup>, it is protected by the Bern Convention<sup>5</sup>.

Furthermore, because of the many acts of appalling brutality that have been inflicted on it over the years, it has its own legislation, the Protection of Badgers Act 1992, whose primary purpose is to prevent such suffering. However, this is not only an issue of animal welfare, it is also costing the Government and hence the tax payer many millions of pounds each year so that the costs of control "are becoming unaffordable"<sup>6</sup>. The Coalition Government has set-out options for badger control in areas with high and persistent levels of bovine TB. To this end, in September 2010, it launched its Consultation "Bovine Tuberculosis: The Government's approach to tackling the disease and consultation on a badger control policy".

In the Consultation document, the Government set out six policy options regarding the control of bovine TB in badgers in England<sup>7</sup>:

**Option 1:** continue with the current policy (i.e. No additional control measures);

**Option 2:** a Government-led policy of badger culling under the Animal Health Act 1981;

**Continued...**

<sup>1</sup>See Defra : "Bovine Tuberculosis: The Government's approach to tackling the disease and consultation on a badger control policy", September 2010. Most of this article is taken from the author's Response.

<sup>2</sup>Annex A to the Consultation, para. 17.

<sup>3</sup>Ibid, para. 18.

<sup>4</sup>It is on Schedule 6, which lists animals that cannot be killed or taken by certain methods.

<sup>5</sup>The Convention on the Conservation of European Wildlife and Natural Habitats, 1979, ETS 104.

<sup>7</sup>See Defra : "Bovine Tuberculosis: The Government's approach to tackling the disease and consultation on a badger control policy", September 2010, p.4. "In England, in 2009, bovine TB cost the tax payer £63m and over 25,000 cattle were slaughtered for bovine TB control", see p. 10.

**Option 3:** a Government-led policy of badger vaccination under the Animal Health Act 1981;

**Option 4:** Issuing licences under the Protection of Badgers Act 1992 to cull badgers;

Option 5: promoting greater use of licences under the Protection of Badgers Act 1992 to vaccinate badgers; Option 6 : issuing licences under the Protection of Badgers Act 1992 to cull, vaccinate or carry out a combination of culling and vaccination.

**A**lthough there appear to be six options, in fact the Government has ruled out the first three. It has decided Option 1 is not working, while Options 2 and 3 are not cost-effective, or, as the Consultation document states “Options 2 and 3 are not affordable given the current pressures on public spending and could not be justified in cost-benefit terms<sup>8</sup>”, but should this be the main criteria when considering a cull of sentient creatures?

Option 4 raises a number of important issues, foremost of which

**“If there is to be a cull, there should be ring vaccination around an area of culling if badgers are not to spread the disease further”**

is the simple fact that culling alone does not work. Badgers have been culled since 1975, in the early days by gassing in their setts with cyanide. Indeed, many thousands of badgers and cattle have been slaughtered in an attempt to eradicate the disease. In this most recent proposal, some badgers would be trapped in cages, and then shot, the others would be killed by free range shooting. The killing would be carried out by farmers and landowners who would be authorised under licence.

The Protection of Badgers Act 1992 makes it an offence to kill badgers except under licence, and then only in certain specific circumstances. This means that the people the Government proposes should carry out the cull, will almost certainly never have shot a badger before. They may well have shot foxes, but a Game Conservancy Trust Report to Defra<sup>9</sup> makes it clear that if the killing is to be carried out humanely, because “badger anatomy differs significantly from deer or fox anatomy” the operators must be well aware of the differences<sup>10</sup>. Thus, “if operator competence is not assured, then there is a distinct risk of causing suffering to some badgers”, although “the actual level of risk” of causing suffering where “animals are shot and wounded but cannot be dispatched quickly” is unknown<sup>11</sup>. Indeed, the Report states quite unambiguously that professional operators rather than landowners and farmers should carry out, at the least, any free range shooting part of a cull. Therefore this option should surely be ruled out on these grounds alone, but if it were to go ahead, it should surely only be carried out by

specially trained marksmen who have been shown to have reached a set level of competency.

Another major problem associated with culling is the phenomenon of perturbation, where badgers, some undoubtedly infected with the tuberculosis bacillus, flee from the killing ground, often ending up some distance into the surrounding area. Badgers, some possibly infected, may also move in from neighbouring areas to occupy vacant territory. The Government suggests using vaccination as a possible option in this situation “e.g. by surrounding culled areas with a ring of vaccination, or vaccinating in any “gaps” in a culled area where culling is not possible<sup>12</sup>”.

Under Option 5, more badgers would be vaccinated against the disease. The vaccine used is BCG<sup>13</sup>, the same vaccine that has been used to great effect to protect humans from tuberculosis. Research on vaccination has been carried out over a number of years, with badgers being vaccinated both in laboratory conditions and in the wild<sup>14</sup>. The results are very encouraging, so much so that at a meeting in December 2008 on The Final Study Report<sup>15</sup>, “it was agreed that there was insufficient scientific grounds to justify culling badgers in 2009”. The study would continue. Moreover, because it is in the later stages of the disease that the bacillus, *Mycobacterium bovis* is transmitted, a vaccine that can reduce the likelihood of an animal progressing to this point, is likely to have a beneficial effect. Indeed, research findings of the latest results of trials conducted by the Veterinary

<sup>8</sup>See note 1, para. 138, p.44.

<sup>9</sup>See the Summary of the Game Conservancy Trust Report to Defra, “Shooting as a potential tool in badger population control”, August 2006, pp. 6-7.

<sup>10</sup>Ibid, point 7, p. 9.

<sup>11</sup>Ibid, point 6, p. 7.

<sup>12</sup>See note 1, para.119, p. 39.

<sup>13</sup>Bacille Calmette Guerin.

<sup>14</sup>The Food and Environment Research Agency has carried out extensive trials in a wild population of badgers.

<sup>15</sup>VLAS/05/036, “Field Trial to Assess the Safety of Bacille Calmette Guerin (BCG) Vaccine Administered Parenterally to Badgers”.

Laboratory Agency, show that vaccination reduced the incidence of the disease by 74%, by slowing down its progression<sup>16</sup>. Another advantage of vaccination is that it is unlikely to cause perturbation. Computer modelling by Fera<sup>17</sup> has suggested that, if there is to be a cull, there should be ring vaccination around an area of culling if badgers are not to spread the disease further<sup>18</sup>. Furthermore, because immunity takes time to develop, “vaccination would need to precede culling<sup>19</sup>”.

An oral vaccine would be an even better option, and although the Consultation document<sup>20</sup> states that this is still at the research stage and unlikely to be available before 2015 at the earliest, this might be unduly pessimistic. A team of researchers led by Dr. Eamonn Gormley and working at University College, Dublin have found a way of preventing the vaccine “from being destroyed by powerful acids in badgers’ stomachs” so that the particles can “be absorbed by the gut where it triggers an immune response”. The researchers’ aim is to incorporate the vaccine into bait “which will be eaten by badgers and over a couple of years we can build up the immunity in badger populations<sup>21</sup>”.

The Government’s preferred approach is Option 6, which is a combination of Options 4 and 5. Licences would be issued to kill badgers “subject to a specific set of licence criteria”. However, “under existing arrangements farmers and landowners will also be able to apply for licences to vaccinate badgers” while “under the new proposal, they

will be able to use vaccination either on its own or for use in combination with culling”. The idea is that farmers and landowners will be empowered “to take control of the wildlife reservoir at the local level and decide for themselves which control measures to use”. This

**“Badger control is part of a package going towards the long term goal of eradicating tuberculosis in cattle”**

approach will encourage them “to fully consider the role of vaccination in support of a cull and increase the chance of successful disease control<sup>22</sup>”. The fatal flaw in Option 6 is that, while it would give farmers and landowners a choice whether to cull, vaccinate or combine the two procedures, there is no compulsion on those who would simply want to kill badgers, to vaccinate them as well. The benefit is that it recognises the fact that those who want to, will be able to use vaccination on its own. Indeed, the Government hopes that this “could also lead to greater participation from a wider range of farmers<sup>23</sup>”.

Badger control is part of a package going towards the long term goal of eradicating tuberculosis in cattle. Although the Coalition Government originally intended to announce their decision in February, at the recent

National Farmers’ Union conference the Minister for Agriculture announced a delay, probably until May at the earliest<sup>24</sup>. Its preferred option is Option 6, yet this fails to make vaccination compulsory. The BCG vaccine works and an oral version could be a more practical and cheaper option for the taxpayer. Research in other countries shows that the vaccine also works to protect cattle, but unfortunately, there is currently a European Union ban on vaccinating cattle against bovine tuberculosis<sup>25</sup> because it is difficult to get an accurate result when testing the herds and there is at present, no way of differentiating between a cow that has the disease and a cow that has been vaccinated.

Defra is working on a diagnostic test (a “DIVA” test) to solve this problem. It aims to have such a test approved by 2012<sup>26</sup>, so anything that can be done to advance this date, should be done, including an increase in research funding. Although badgers are protected under the Bern Convention “exceptions can be made for various purposes” and this includes taking action to prevent serious damage to livestock, “but only provided that there is no other satisfactory solution and that the exception will not be detrimental to the survival of the population concerned<sup>27</sup>”. With the current rapid improvements in vaccination, any use of the exception will become increasingly difficult to justify for, as Dr. Gormley pointed out “while culling can be effective at controlling TB spread in the short term, in the long term, vaccination is really the only way to eradicate the disease<sup>28</sup>”.

<sup>16</sup>See: The Proceedings of the Royal Society B, November 2010.

<sup>17</sup>The Food and Environment Research Agency.

<sup>18</sup>Defra Home Page, Research Section and Consultation, Annex D, pp. 1-2.

<sup>19</sup>Ibid, para.6, pp.1-2.

<sup>20</sup>See note 1, Annex C, paras. 8 and 12.

<sup>21</sup>Richard Gray “Oral TB vaccine may prevent need for badger cull”, The Telegraph, 12 September 2010.

<sup>22</sup>See note 1, para. 138, pp. 43-44.

<sup>23</sup>Ibid.

<sup>24</sup>See <http://www.farmersguardian.com/home/latest->

[news/nfu11-badger-cull-decision-on-hold-paice/37243.article](http://www.farmersguardian.com/home/latest-news/nfu11-badger-cull-decision-on-hold-paice/37243.article)

<sup>25</sup>See EU Directive 78/52/EEC.

<sup>26</sup>See note 1, para. 62, p. 23.

<sup>27</sup>See note 1, para. 76, pp. 27-28.

<sup>28</sup>See note 17.