

The political economy of bovine tuberculosis in Great Britain

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Summary

A brief history of bovine tuberculosis (bTB) and its control in Great Britain (GB) is presented. Numerous diverse policies to control the disease in humans, cattle and wildlife have been pursued over the last 100 years and many millions of pounds have been spent. After notable success in reducing the incidence and prevalence of bTB in cattle in GB from the 1950s to the mid-1980s, the geographical spread of the disease and the number of cattle slaughtered have increased continually since that time, with a high point of bTB incidence in 2008. This increase appeared to coincide with changing policy regarding the control of the disease in badgers, with a more humane approach adopted and with strengthened protection for badgers through legislation. Indeed, there has been much controversy in the debate on the role of badgers in disease transmission to cattle and the need for their control as vectors of the disease. The issue has attracted the attention of the media and there have been various commissioned research projects, trials and public consultations. The findings of two social science investigations presented as examples showed that citizens generally believed that bTB in cattle is an important issue that needs to be tackled, but objected to badgers being killed, whilst cattle farmers were willing to pay around £17/animal/year for a bTB cattle vaccine. It is noted that successes regarding the control of bTB in other countries have combined both cattle and wildlife controls and involved industry working in close partnership with government.

Keywords

Badgers – Bovine tuberculosis – Disease control – Culling – Great Britain – Policy.

A brief history of bovine tuberculosis policy in Great Britain

The decline of bovine tuberculosis in Great Britain

Bovine tuberculosis (bTB), which could be described as the BSE of the late 19th Century (1), was not identified as being different from human tuberculosis until 1882. Following its identification, three Royal Commissions were appointed to look into the disease between 1890 and 1911. However, nothing tangible was done to control bTB until the Tuberculosis Orders of 1913/14, which allowed a health authority to slaughter an 'openly' affected animal. The numbers of cattle slaughtered under these

orders increased year by year such that in 1929 some 15,500 cattle were killed. By the 1930s, at least 40% of dairy cattle were thought to be infected with bTB (2), with around 2,500 human deaths per year and much greater numbers of people suffering illness (in stark contrast to more recent times, when there have been so few cases in humans that bTB control in cattle has been described as 'irrelevant as a public health policy') (3). A voluntary Attested Herd Scheme and milk pasteurisation were introduced in 1935 to prevent the transmission of the disease to humans. However, by 1947 only 14% of cattle were in attested herds (i.e. herds that were certified as being subject to regular tuberculin testing, with immediate slaughter of any reactor cattle).

In 1950, an eradication policy was pursued, with compulsory testing of cattle, slaughter of those that tested positive and government compensation to cattle farmers. In addition, pasteurisation became routine and slaughterhouse

inspections were increasingly put in place to protect public health. By 1960, all cattle herds in GB were attested. The prevalence of bTB in cattle fell markedly during this period and the number of cattle slaughtered due to the disease dropped from some 23,000 in 1935 to a low level in 1960 (data are too unreliable to give precise numbers of cattle slaughtered).

In 1971, bTB was identified in badgers (4). The 1973 Badger Act provided protection for badgers but the Ministry of Agriculture, Fisheries and Food (MAFF) could grant licences to individuals to kill badgers to prevent disease spread. Between 1975 and 1982, MAFF controlled the disease by gassing badgers in their setts (under the Conservation of Wild Creatures and Wild Plants Act 1975). The disease and the number of cattle slaughtered continued to decline until the late 1970s, with 1979 recording the lowest prevalence (0.49% of herds tested and 0.018% of cattle tested). Fewer than a thousand cattle were slaughtered in 1980 and the prevalence remained at a low level until the mid-1980s, when it started to rise again (5). During this time, experiments at the government's Central Veterinary Laboratories had confirmed that infected badgers could pass infection to cattle (6). However, in 1980, an independent review (the Zuckerman review [7]) responded to concerns that the gassing of badgers was inhumane and it was stopped. Instead, from 1982–1985 there was a policy of cage-trapping social groups of badgers on farms with bTB-infected herds and culling (by shooting) those groups found to be infected.

The rise of bovine tuberculosis in Great Britain

In 1986, there was another independent review of policy (the Dunnet review [8]), which introduced an 'interim strategy' which lasted until 1997, with badger culling only on farms where bTB was confirmed and where badgers had been shown to be the source of infection. The 1992 Protection of Badgers Act provided additional protection for badgers in GB, making it an offence to kill, injure, cruelly ill treat or take a badger, or interfere with a sett (9). By 1996 it was clear that this interim strategy was not working, with bTB in cattle rising substantially. An Independent Scientific Review Group was set up, chaired by zoologist John Krebs, which reported its findings at the end of 1997 (10). As a result of this review, the Independent Scientific Group (ISG) on Cattle TB was set up in 1998. The group put in place an extensive Random Badger Culling Trial (RBCT), which continued until 2005. The ISG reported mixed results from the trial, highlighting that the effects of badger culling on bTB incidence in cattle were very dependent on the size and characteristics of the area over which culling took place and the extent of badger perturbation (movement of badgers due to disturbance). Some areas experienced a reduction in bTB incidence in cattle but others experienced increases (thought to be due to badger perturbation). The

ISG concluded that 'badger culling cannot meaningfully contribute to the future control of cattle TB in Britain' (11).

It is worth noting that in 2003 the reactive component of the RBCT (whereby badgers were culled locally on and near farmland where recent outbreaks of TB had occurred in cattle) was stopped because of the rise in bTB in some areas. Arguably, the decision to cease this element of the RBCT resulted in a loss of trial data being available for subsequent analysis. Within the trial period the government undertook a review and consultation of bTB policy and in 2005 published the *Government Strategic Framework for Sustainable Control of Bovine Tuberculosis (bTB) in Great Britain*, providing a ten-year vision which aimed to 'develop a new partnership' to slow down spread and reduce cattle incidence in high-incidence areas (12). In 2006, the government introduced pre-movement bTB testing of cattle and reduced compensation payments for compulsorily slaughtered cattle (which had previously been 100% of market value).

Governance and the role of advisory committees

During this period, the British government used a number of advisory boards to advise on bTB strategy and implementation. The TB Forum (a stakeholder group chaired by the Department for Environment, Food and Rural Affairs [Defra]) operated from 1999 to 2006. It was described by an Environment, Food and Rural Affairs Select Committee (13) as 'an arena for the repetition of entrenched views', with a Defra official refereeing an often heated and confrontational debate between farmers' representatives on one side, calling for a cull of badgers, and wildlife groups on the other, maintaining that badgers were largely not to blame for bTB and that a cull would achieve very little. In 2006, the TB Advisory Group (TBAG) was set up. There was also a bTB Husbandry Group (set up in 2006) and a bTB Science Advisory Board (set up in 2008). In 2005, the government had also set up an England Implementation Group (EIG) for the Animal Health and Welfare Strategy (later disbanded in 2009 and replaced with the Animal Health and Welfare Board for England), but it largely steered clear of commenting on bTB policy, in part because they feared that the wide remit of EIG could become dominated by the issue.

A high point of bTB incidence was seen in 2008, with 6.4% of herds declared as 'new culture or lesion positive'. In July 2008, the then Defra Minister announced that there would be no badger cull due to the uncertainty of success (Defra-commissioned research had highlighted the costs of badger culling in relation to the possible scenarios of bTB incidence in cattle, with some scenarios showing a worsening of bTB due to badger perturbation and others a net cost associated with badger culling in relation to the benefits [14]). However, the Minister also announced a

£20 million investment in vaccine development, with the long-term goal of eradicating bTB in GB (in 2009/10 the Defra Badger Vaccine Deployment Project introduced an injectable Bacillus Calmette–Guérin [BCG] badger vaccine, but largely owing to the expense of trapping and vaccinating individual badgers, uptake has been poor, despite some government funding). This goal was reiterated in the TBAG 2009 report, ‘Towards Eradication’ (15), which marked a policy change from merely aiming to reduce the incidence and slow the spread of bTB in cattle (12).

At this time, TBAG was disbanded and replaced by the TB Eradication Group (TBEG) which in turn (in 2012) was replaced by TBEAG (TB Eradication Advisory Group) for England, which advised the newly formed Animal Health and Welfare Board for England, which had been set up in 2011. Wales (and, to some extent, Scotland) had similar devolved bodies.

In 2011, Defra produced a TB eradication programme for England which it described as ‘a comprehensive and balanced package of measures to tackle TB in cattle, badgers and other animals, including the Government’s view that it is strongly minded to allow a science-led cull of badgers in the worst affected areas’ (16). A top priority of the programme was to produce a cattle vaccine and an oral badger vaccine, but it recognised that this would take some years. In 2013, a somewhat controversial cull of badgers was introduced into two pilot areas of England, in west Gloucestershire and west Somerset. Badger and other wildlife and animal welfare groups were generally against the trial. The primary aim of these trials was to assess the effectiveness, safety and humaneness of culling using ‘free shooting’ (i.e. rather than trapping in cages and then shooting). The Welsh government suspended a badger cull programme in 2011 and replaced it with a five-year trapping and vaccination programme.

Role of the media

The issue of badger culling has been a sensitive and political one for some decades, arguably with the media (especially newspapers) helping to stoke public concerns. Two newspaper articles provide good examples of this. The first was in *The Independent* newspaper (16 December 2005) and reported on the government’s consultation on badger culling in 2005. This story was given substantial space inside the paper and virtually the whole of the front page was dominated by a picture of a badger and a large print headline which read, ‘The Culling Fields’. Two additional sub-headings read, ‘Mass slaughter plan for badgers provokes outcry’ and ‘Animal groups deny that cull will ease TB crisis’. The main headline is an emotive play on the title *The Killing Fields*, the well-known 1984 film about the Cambodian War in the 1970s and Pol Pot’s cleansing campaign which killed two million ‘undesirable’ civilians.

This could be interpreted as suggesting that badger culling is akin to ethnic cleansing.

The second article was in *The Independent*’s ‘i’ newspaper (14 September 2013) and reported on the pilot badger culls in England referred to previously. Again, the article was accompanied by a picture of a badger together with members of an ‘anti-badger-cull patrol’ in west Somerset. The article was headlined, ‘We heard four shots, a scream, then grunting ... then silence’. The headline was taken from a local patrol member who is quoted as saying, ‘We heard three or four shots, which lasted three to five seconds, then grunting, then silence... I know what death sounds like’. Again, arguably, this is very emotive reporting that focuses almost entirely on the perspective of those protesting against the pilot cull, and with an emotive and perhaps anthropomorphic description of badgers ‘screaming’.

The 2005/2006 public consultation on badger culling received over 47,000 letters, 10,000 texts and 13 petitions, with only 4% of people in favour of culling (17). Polls on badger culling since 2012 have found more people opposed to a cull than supporting one (18), although public opinion appears to have softened somewhat in this regard over the last ten years.

Following public consultation, in April 2014, Defra published its *Strategy for Achieving Officially Bovine Tuberculosis Free Status for England*. The main elements of this are:

- aiming to achieve Officially TB-Free (OTF) status for England by 2038, with some parts being OTF by 2025
- pursuing a ‘risk area’ strategy (see below)
- culling badgers in endemic areas
- providing £24.6 million for the development of cattle and badger vaccines (cattle vaccine/DIVA field trials began in 2015, although usable vaccines are referred to as ‘still many years away’) (19).

A key element of this strategy is the ‘edge area’, which is one of three types of bTB risk area identified in the strategy – ‘high risk areas’ (around 9% herd prevalence in 2013), ‘edge areas’ (around 1% herd prevalence and increasing) and ‘low risk areas’ (around 0.1% herd prevalence and stable). The ‘edge area’ is a geographical area at the edge of annually tested areas in England where bTB is not thought to be endemic but where infection is either spreading or is likely to spread in the short to medium term (20). Edge areas are subject to ‘enhanced cattle controls’ and annual testing. In addition, a voluntary risk-based cattle trading scheme was introduced (21).

The current situation

Despite the extensive activities undertaken over the last few decades, bTB continues to increase its geographic spread in England and Wales without satisfactory resolution, although Scotland (with a historically low and stable incidence of bTB) became OTF in 2009. The costs associated with bTB in GB increased markedly between 1998/99 and 2008/9, from an estimated £25 million (12) to over £108 million (22). Recent figures are not yet available, but in 2013/14, the costs were estimated at over £111 million (23). In the twelve months to September 2016, there were over 4,600 new herd incidents, disease-restricted herds represented 5.5% of herds in England and 4.9% in Wales, and 40,000 cattle had been slaughtered due to bTB, compared to 22,500 in 2006 (24).

The bTB debate continues to revolve around a number of 'thorny' issues. These include:

- the contribution to infection of cattle-to-cattle spread and badger-to-cattle spread, and spread to cattle from other wildlife
- the efficacy of bTB cattle testing
- the efficacy of cattle and badger vaccination
- the acceptability, efficacy and cost of badger culling
- the potential of farm biosecurity measures to reduce spread
- the role of government and partnership with stakeholders (especially the cattle industry)
- the polarisation of opinion, with often heated, emotive debate and apparently conflicting evidence; for example, whilst the ISG concluded that a badger cull made no meaningful contribution to the control of cattle TB in Britain, the Select Committee on Agriculture (25) stated that it could have a 'significant effect on reducing TB in cattle'.

Pfeiffer (26) looks back on the previous 20 years of the problem of bTB in GB and concludes that an 'integrated risk governance perspective' is needed which includes the participation of stakeholders and which takes account of the drivers of human behaviour (the importance of the latter to livestock disease control is well highlighted by Olmstead and Rhode [27]).

Social science research case studies

This section presents two case-study examples from 22 published economic and social science studies of bTB in GB identified by a Defra review in 2013 (28).

Public attitudes to badgers and bovine tuberculosis in cattle

A long-standing issue in bTB control in GB has been the control of badgers as a source of cattle infection. A number of research studies have been commissioned by government to assess the role that badger control may play in reducing bTB and to ascertain stakeholders' views, particularly in relation to badger culling in its various forms (trapping and shooting, gassing, 'free' shooting). A major problem in this regard has been that, historically, British citizens have seen the badger as a much loved wildlife species. They have been exposed to badgers since childhood through literature such as *The Wind in the Willows* (29) and through wildlife groups (the badger is the emblem on the logo of the 47 Wildlife Trusts in the United Kingdom) and wildlife programmes on their television screens (e.g. the BBC's *Springwatch* programme).

In 2007/8 Defra commissioned a study to assess the value that people in England and Wales give to badger populations in the context of bTB and possible badger culling (30). The study involved a choice experiment (CE) survey of 400 telephone interviews using a stratified random sample of households in England and Wales. The interview questionnaire contained:

- i) questions about respondents' experiences of badgers and their attitudes regarding the management of badgers
- ii) an information statement about badgers and bTB, an explanation of the choice exercise and the choice sets (sets of alternative options which people were asked to choose between to express their preferences)
- iii) an open-ended question asking respondents to explain the reasoning behind their choices
- iv) a further series of questions on respondents' attitudes to badger management and bTB
- v) questions about the respondent and their household.

Each choice set contained two options, each of which combined four attributes at differing levels (see Box 1 for the attribute levels and Table I for an example choice set). The four attributes used in the choice sets were i) the size of the badger population, ii) the number of cattle slaughtered due to bTB, iii) the type of badger management strategy, and iv) the increase in household tax needed to pay for the control strategy. For each attribute there were four levels, e.g. for the fourth attribute, the four alternatives were £5, £20, £50 or £100 per year. The respondents were each presented with eight choice sets of two alternative combinations of attribute levels (i.e. two options). The choice sets were generated using a computer program that

Box 1
Attributes used in the choice experiment and the four attribute levels within each one

1. Badger population

- 100,000
- 200,000
- 300,000
- 400,000

2. Management strategy

- Trap and shoot badgers
- Administer contraceptive to badgers
- Maintain current policy: badgers remain a protected species
- Implement current policy plus provision of badger tunnels under roads

3. Cattle with tuberculosis slaughtered per year

- 0
- 10,000
- 20,000
- 50,000

4. Increase in tax per household per year

- £5
- £20
- £50
- £100

Table 1
Example of a choice set used in a study to assess the value that people in England and Wales give to badger populations in the context of culling badgers to control bovine tuberculosis
 Respondents must choose their preferred option, either A or B

Attribute	Options	
	A	B
Badger population	100,000	300,000
Management strategy	Trap and shoot badgers	Current policy*
Cattle with bTB slaughtered per year	10,000	20,000
Increase in tax per household per year	£20	£20

bTB: bovine tuberculosis
 * Badgers remain a protected species

paired lists of attributes that it randomly selected from 16 different options.

From the choices made by respondents estimates were derived (using a Conditional Logit model) for the trade-offs that people are prepared to make between the various attributes (i.e. their 'value' in terms of other attributes which include a money payment).

The main findings of the study in terms of citizens' attitudes to bTB in cattle and control of badgers are shown in Figure 1. Ninety-two percent of people agreed that controlling bTB in cattle is important, but they were not sure that this should be done by controlling badger populations. Seventy-three percent objected to badgers being intentionally killed, 87% thought it acceptable to control badger populations if it could be done without killing, whilst just over half of people thought that a limited or temporary cull of badgers was acceptable if it solved the bTB problem. It was estimated that respondents would be willing to pay a mean of £0.10 per household per year for an extra 100,000 badgers in the badger population (within population limits of 100,000 to 400,000), £1.52 per household per year for every 10,000 reduction in cattle slaughtered due to bTB and £68.31 per household per year not to have badger culling.

Aggregating these values for England and Wales (21.7 million households) gives a willingness to pay (WTP) per additional badger in the population of £22/year and a WTP of £3,298 per animal for a reduction in cattle slaughtered each year due to bTB. This would value a reduction in the badger population from the current 300,000 to 100,000 animals at £4.4 million per year and a reduction in cattle slaughtered due to bTB from 24,000 per year to zero at £79 million per year. Badger culling would appear to be very important to people, with a very high aggregate WTP of £1,480 million/year for England and Wales. It is likely that people have overstated their willingness to pay wishing to make a 'protest vote' because of the highly emotive nature of badger culling, with strong feelings against it.

The value of a bovine tuberculosis cattle vaccine to farmers

Cattle vaccination is another area of intense debate in relation to bTB control, and substantial sums of public money have been spent in pursuit of a practical and efficacious cattle vaccine. Defra commissioned a study in 2010/11 to explore farmers' attitudes towards, and willingness to pay for, a bTB cattle vaccine (31). The study involved telephone interviews with 287 cattle farmers in annually tested areas in England and Wales, stratified according to whether they were dairy farmers or beef farmers and whether or not they had had a bTB incident ('breakdown') in the previous five or ten years.

The questionnaire administered to farmers was divided into eight parts:

- i) farm information (size and type of herd, etc.)
- ii) information relating to bTB on the farm
- iii) attitudinal statements and questions concerning bTB risk, bio-security, etc.

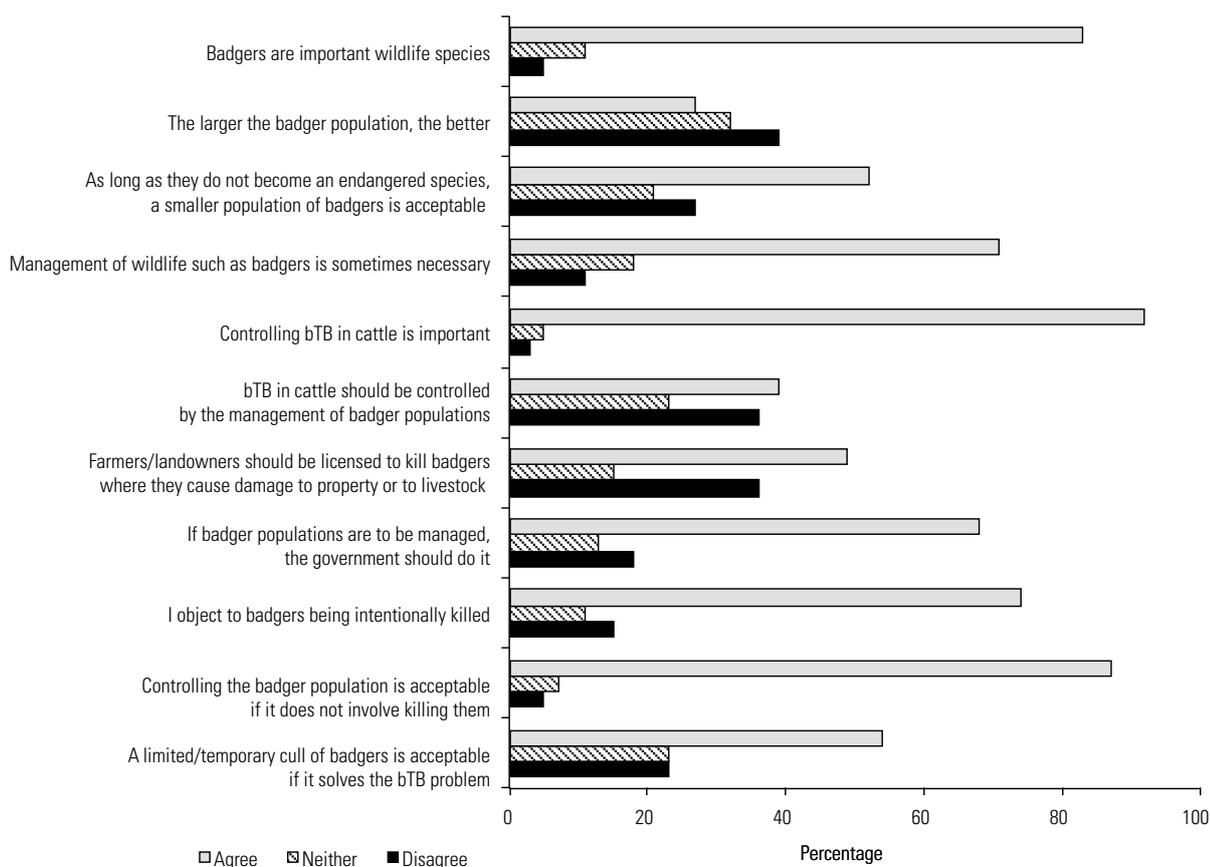


Fig. 1
Public attitudes to badgers and bovine tuberculosis

iv) an information statement about bTB and a possible cattle vaccine

v) a choice experiment exercise (containing a description and explanation of what the respondent should do with eight randomly allocated choice sets presented to them)

vi) a contingent valuation (CV) question (CV is a technique used to elicit the valuation of something that does not have a market price by asking respondents whether or not they would be willing to pay a given amount)

vii) an open-ended debriefing question (asking respondents to explain the reasoning behind the choices they made) and follow-up attitudinal questions relating to their WTP

viii) personal details of the farmer and their family.

The survey used both CV and choice experiment methods to elicit farmers' willingness to pay for a bTB cattle vaccine with specific attributes. These attributes were:

i) vaccine effectiveness in terms of the ability of a vaccine to prevent a farm having a bTB breakdown (risk of breakdown)

ii) vaccine effectiveness in terms of the ability of a vaccine to reduce the severity of a breakdown (i.e. reduction in the number of reactor cattle)

iii) the level of insurance or 'loss recovery' associated with a vaccine where a vaccine fails to prevent a bTB breakdown

iv) the cost per dose per animal of the vaccine.

Table II shows the levels for each attribute and an example of a choice set.

In the CV question, respondents were provided with a brief scenario of a bTB cattle vaccine that was 90% efficacious and backed by a 100% insurance/loss recovery of total losses due to a bTB breakdown. The level of efficacy chosen was thought to be the maximum that would be credible to respondents. It was assumed in this case that the vaccine had to be administered annually. The CV question asked participants: 'Would you be willing to pay £x per animal per year for such a vaccine?' Participants were first asked this question in relation to either £10 or £15 (chosen randomly). If they answered 'no' to this first bid they were then asked whether they would be willing to pay a lower amount, either

Table II
Vaccine attributes, attribute levels, and an example choice set used in the survey to ascertain farmers' willingness to pay for a bovine tuberculosis cattle vaccine

Vaccine attributes and attribute levels	Options		
	A	B	C ^(a)
Vaccine effectiveness: reduction in the risk of a breakdown (20%, 40%, 60%, 80%)	60	80	0
Vaccine effectiveness: reduction in the breakdown severity (20%, 40%, 60%, 80%)	80	80	0
Insurance/loss recovery ^(b) as % of total financial loss from bTB (0, 40%, 60%, 80%, 100%)	60	100	70
Cost of vaccine dose ^(c) (£5, £10, £15, £20, £30)	£10	£20	£0

a) option C remains the same in each choice set
 b) the extent to which the farmer was covered by insurance for total losses
 c) based on likely vaccine prices and pilot survey responses
 bTB: bovine tuberculosis

£5 or £7, respectively. If they answered 'yes' to the first bid they were then asked whether they would be willing to pay a higher amount, either £20 or £30, respectively. Bid levels were chosen in the light of likely vaccine costs, focus group discussion of farmers' WTP and bid values elicited in a pilot questionnaire.

Farmers' WTP for the vaccine attributes were estimated from the CE responses using a Bayesian mixed logit model following Train & Sonnier (32). Farmers' WTP for the cattle vaccine specified in the CV questions was estimated using the interval data estimation approach (33, 34) and using a Bayesian estimation method.

Results showed that 68% of 287 farms had experienced a bTB breakdown. On average, farms reporting a bTB breakdown had had 2.4 breakdowns in the previous five years, with an average of seven reactors in the most recent breakdown. The number of reactors or other animals slaughtered ranged from 0 to 200. The average length of breakdown experienced by the farms was 34 weeks. More than two-thirds (68%) of farms were clear of bTB at the time of the survey. Over 96% of farmers agreed that bTB was a major risk for the GB cattle industry, 61% felt that their farm had a high risk of a bTB breakdown, 39% agreed that biosecurity on farms can greatly reduce the risk of bTB (40% disagreed), and over 71% thought that there was not much they could do to prevent their cattle getting bTB. Most farmers believed that there was a relatively high probability of their herds suffering a bTB breakdown, as shown in Table III. Indeed, most farmers felt there was at least a 50% chance of their herd suffering a breakdown in any one year, which was substantially higher than suggested by breakdown statistics in those areas.

Table III
Farmers' perceptions of the likelihood of their herd testing positive for bovine tuberculosis in any one year (% of sample in each category) depending on whether or not the farmer had previously experienced a bTB breakdown

Likelihood (%)	Whole sample (n = 287)	Previous bTB breakdown (n = 195)	No previous bTB breakdown (n = 92)
>50	30.0	38.5	12.1
50	24.0	24.6	23.1
33	12.2	12.3	12.1
20	9.4	10.8	6.6
10	8.7	5.1	16.5
5	5.6	3.5	11.0
<5	10.1	5.6	18.7

bTB: bovine tuberculosis

Analyses of farmers' WTP from the CE found that farmers had the highest WTP for a vaccine that could reduce the risk of a breakdown, the second highest for loss insurance, and the third highest for a vaccine that would reduce the severity of disease in terms of the numbers of reactors. Mean WTP for a single-dose vaccine of 90% efficacy and backed by 100% insurance was £55 per animal. In contrast, mean willingness to pay from the CV estimate was £17 per animal per year for an annual vaccination which offered 90% efficacy and 100% insurance. Both estimates had relatively high standard deviations, reflecting a large range of WTP responses from farmers. Given the average lifespan of cattle, these values are comparable, which provides some validity of their credibility.

Conclusion

This paper has briefly explored some aspects of the political economy of bTB in GB. It has provided a brief historical review, considered the influence of the media and changing governance, and provided examples of the social science research related to the 'bTB problem'. Other countries, notably Australia, the United States (Michigan), New Zealand and the Republic of Ireland have all had some success in controlling bTB. However, each of these has combined control of the disease in wildlife (water buffalo, deer, possums and badgers, respectively) with control of cattle-to-cattle transmission and included substantial involvement of industry (including cost-sharing), working in partnership with government.



Économie politique du traitement de la tuberculose bovine en Grande-Bretagne

R.M. Bennett

Résumé

L'auteur retrace brièvement l'histoire de la tuberculose bovine et de la lutte contre cette maladie en Grande-Bretagne. Diverses mesures sanitaires ont été appliquées au cours des cent dernières années afin de maîtriser la maladie chez l'homme, chez les bovins et dans la faune sauvage, pour une dépense totale de plusieurs millions de livres. Après la chute remarquable de l'incidence et de la prévalence de la tuberculose bovine en Grande-Bretagne enregistrée depuis les années 50, la situation s'est inversée au milieu des années 80 et tant la distribution géographique de la maladie que le nombre de bovins abattus n'ont cessé de croître depuis cette date, l'année 2008 marquant le pic de l'incidence de la tuberculose bovine. Il est désormais établi que cette hausse a coïncidé avec l'évolution des politiques de lutte contre la tuberculose chez les blaireaux, à la faveur d'une approche plus respectueuse du bien-être animal qui s'est traduite par une protection renforcée des blaireaux dans la législation. En effet, le rôle des blaireaux dans la transmission de la tuberculose aux bovins et l'impératif de lutter contre les blaireaux en tant que vecteurs ont fait l'objet de très fortes controverses. Cette question a attiré l'attention des médias et il y a eu de nombreux projets de recherche commandités sur le sujet, d'expériences et de consultations publiques. D'après deux enquêtes sociologiques citées par l'auteur, les citoyens étaient généralement convaincus de l'importance de la tuberculose chez les bovins et de la nécessité de s'y attaquer mais ils s'opposaient aux mesures d'abattage des blaireaux, tandis que les éleveurs de bovins étaient disposés à payer environ 17 livres par bovin et par année pour pouvoir vacciner leurs bovins contre la tuberculose bovine. L'auteur fait observer que les succès enregistrés dans d'autres pays dans la lutte contre la tuberculose bovine sont liés à l'application combinée de mesures de contrôle chez les bovins et dans la faune sauvage et à une étroite collaboration entre les éleveurs et le gouvernement.

Mots-clés

Abattage sanitaire – Blaireaux – Grande-Bretagne – Lutte contre les maladies animales – Politique sanitaire – Tuberculose bovine.



Economía política de la tuberculosis bovina en Gran Bretaña

R.M. Bennett

Resumen

El autor repasa sucintamente la historia de la tuberculosis bovina y de su control en Gran Bretaña. En los últimos 100 años se han aplicado numerosas y variadas políticas y se han invertido muchos millones de libras para combatir la enfermedad en el ser humano, el ganado vacuno y la fauna silvestre. Entre mediados del decenio de 1950 y mediados del de 1980 se trabajó con notable éxito para reducir la incidencia y prevalencia de la enfermedad en el ganado vacuno británico. Pero a partir de ahí hubo una progresión constante en la propagación

geográfica de la enfermedad y en el número de cabezas de ganado sacrificadas, con un máximo de incidencia registrado en 2008. Tal incremento parece coincidir con una inflexión de la política aplicada para luchar contra la enfermedad en los tejones, con la adopción de métodos más clementes y de medidas legislativas que instauraban un mayor nivel de protección de los tejones. Ha habido en efecto una gran controversia acerca del papel de los tejones en los procesos de transmisión de la enfermedad al ganado vacuno y la necesidad de controlar a esos animales como vectores de la infección. El tema ha suscitado gran atención mediática y ha sido objeto de una serie de proyectos de investigación, experimentos y consultas públicas. Según demuestran las conclusiones de dos investigaciones de ciencias sociales presentadas como ejemplo, en general los ciudadanos pensaban que la tuberculosis bovina en el ganado era un problema importante al que había que dar respuesta, pero se oponían al sacrificio de los tejones, a la vez que los ganaderos estaban dispuestos a pagar alrededor de 17 libras/animal/año por la vacunación antituberculosa de sus rebaños vacunos. El autor señala que los éxitos obtenidos en otros países a la hora de combatir la tuberculosis bovina pasan por instaurar controles a la vez en el ganado y en la fauna silvestre y por lograr que la industria trabaje en estrecha asociación con las instancias públicas.

Palabras clave

Control de enfermedades – Gran Bretaña – Política – Sacrificio sanitario – Tejón – Tuberculosis bovina.



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