

Bovine tuberculosis: a problem for farmers, conservationists and policymakers

Bovine tuberculosis has posed increasing challenges to policymaking in the past forty years but research is providing some new angles from which to address the problem.



Ball-end calipers used in bTB testing. Photo copyright Gareth Enticott.

Policy and Practice Notes

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The incidence of bovine tuberculosis (bTB) has been increasing since the 1970s and poses major challenges for the Government, veterinarians and farmers. Many farmers blame badgers for spreading the disease but this is disputed by wildlife groups. The problem has seemed intractable to policymakers.

Why does bovine tuberculosis matter?

The increase in the number of herds affected and the spread of infection across the UK has impacts upon:

- Farm productivity.
- Mental health and wellbeing of farmers, frustrated by control programme culling of apparently healthy cattle.
- Health and welfare of animals, because effort is focused on the control programme, rather than on the development of good herd health strategies.
- International trade agreements, if herds testing positive reach a critical level.
- Public expenditure, at a time when budgets are under extreme pressure.

Do we know what is causing the rise in bTB cases?

bTB was successfully controlled and almost eliminated from the UK between 1920 and 1965, through accreditation of disease-free herds and annual testing of all cattle.

When accreditation was removed and testing reduced, the incidence in UK herds started to increase, just as bTB was first detected in badgers. Since then the issue of bTB control has largely been overtaken by the debate about the role played by badgers. Scientific research demonstrates that:

- There is both cattle to cattle, and badger to cattle transmission.
- The relative contribution of each is still uncertain and likely to vary between farms.

What options may be available to policymakers?

The Welsh Assembly Government recently decided to conduct a cull of badgers within a wider control programme. Culling is now included in the Coalition Government agreement.

The Independent Scientific Group found that culling of badgers would have to be carried out over large areas and even this would not remove bTB completely, so is unlikely to be cost-effective.

Research suggests other options in the medium term:

- Genetic differences between cattle open up possibilities for the role of breeding to contribute to resistance to infection and/or disease.
- Classification of strains of the bacteria can increase understanding of the infection and how it is transmitted.
- A vaccine for use in badgers has been approved and its use is about to be tested in the field.
- Approval of a vaccine for use in cattle is being sought, although this will require changes in EU legislation.

What problems face policymakers in controlling bTB?

The UK media have provided the key public arena in which bTB policy has been discussed and debated. This is sometimes problematic, because news coverage:

- Tends to emerge as a political, environmental or agricultural story rather than a scientific one, meaning that pre-existing agendas on the issue become accentuated.
- Generally reflects the political orientation of the various national newspapers, which further politicises the issue.
- Gives participants in the debate a platform to reinterpret research findings to support their own positions, changing their rhetoric about the certainty of scientific evidence as they go.
- Tends to polarise the debate, and focuses strongly on the role of badgers.

The ambivalent attitude towards badgers in British culture helps to explain why culling as a means of bTB control is so controversial.

- To many they are a highly cherished wildlife species in a country which has few remaining large mammals.
- To others badgers can be a persistent and disruptive pest.
- Media coverage has been high profile and emotive on both sides of the debate.
- Contemporary cultural representations of badgers, particularly in children's fiction, are largely positive – they are often associated with wisdom, bravery, connections with the natural environment, and national identity.
- Arguments over whether badgers are “good” or “bad” are historic and long predate today's controversy over bTB.



Farmers' and veterinarians' understandings of bTB and their support for control programmes are critical to success.

- Testing for bTB is complex; the test is read by the farmer's vet who has to interpret the result for their client.
- Cattle show no obvious disease, which means that bTB risks often remain 'invisible', and so the benefits of controls for cattle health may not be appreciated.
- Biosecurity to reduce the risk of introduction and persistence of bTB is the responsibility of farmers, but the costs of control are currently borne by Government, which may reduce incentives for more effective precautions by farmers.
- If there is no official culling of badgers, this may encourage illegal culling; such practices have a long history predating bTB and current legislation.

What does this mean for policymaking now?

There is no simple solution to the challenge of controlling bTB – any approach is likely to be controversial. Earlier attempts to create a consensus between stakeholders such as the Badger Panel did not work.

There are some lessons from current research:

- Science plays a crucial role in informing the policy debate but bTB cannot be depoliticised or resolved solely through the collection and analysis of scientific evidence.
- The role of cattle to cattle transmission and persistence of bTB in herds has been underplayed in recent years and measures such as movement controls could play an important part.
- Decisions need to give appropriate weight to the actual and potential impact of bTB on the beef and dairy industries, the health and welfare of cattle, the psychological well-being of farmers and the costs to Government, as well as to implications for wildlife.
- Although the science is still incomplete ministers need to give a clear direction to policy, having weighed up the available evidence.

Communications are vital:

- The authorities will need to communicate decisions clearly, but with an appreciation of the contradictory understandings of both badgers and disease risks, and with a more sophisticated approach to communication and engagement.
- Communication should be more about the varied issues around cattle health and less about the badger.
- bTB control would benefit from receiving more dedicated media coverage as a complex scientific issue, alongside existing environmental, agricultural and political coverage.

Policies need to be flexible:

- Measures being undertaken in Wales, although they will fall short of the standards of a ‘scientific experiment’ should still feed into the policy debate and understanding of the social contexts.
- Vaccination of badgers might offer a way forward. It may not be necessary to vaccinate all badgers to have an effect; however, a controlled trial would be needed to establish the costs and impact of vaccinating badgers on bTB prevalence in cattle.
- Cattle vaccination is possible but not practicable at this stage, in part due to EU rules and trade effects. A controlled trial would also be needed.
- Scientific and technical advances offer further options for the future.

Costs will be an important aspect:

- Reduction of public expenditure on bTB should be a medium-term objective: the costs of control are likely to increase before they can decrease.
- It is unfortunate that Defra’s plans for a responsibility and cost sharing framework for animal disease control do not currently include endemic disease, such as bTB. A successful control programme is likely to have to redistribute the responsibility and cost of bTB control.

Further information

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Project websites:

http://www2.warwick.ac.uk/fac/cross_fac/gld

<http://www.relu.ac.uk/research/ID%20Fellowships/Cassidy.html>

Useful resources:

www.relu.ac.uk/research

