

**Bovine Tuberculosis TB Annual Meeting for Great Britain
17th May 2007**

A report from Keystone Conference & Event Management Ltd

Contents

1. Introduction
2. Attendees
3. The Programme
4. Evaluation

1. Introduction:

The Government strategic framework for the sustainable control of bovine TB in Great Britain sets out a commitment to improve communication with stakeholders on bovine TB (bTB) which it suggests should include, as part of the process, an annual GB conference.

The first conference was held on 6 March 2006 at the Birmingham Botanic Gardens. The second conference was held at Church House Conference Centre, Westminster, London on 17 May 2007

The aim of this second conference was to bring stakeholders up to date on developments in the past year including the research programme, and provide opportunities for discussion.

This report is intended to be a fair reflection of the views expressed at the meeting by stakeholders. Views in this report do not necessarily reflect Government policy. Government attendees were there to present information, facilitate and listen to the views of stakeholders.

2. Attendees

The intention was to include all relevant stakeholder interests. We also asked the key groups (farming, veterinary and wildlife organisations) to nominate up to 4 representatives to attend, if possible providing between them a good geographical spread, including some delegates from both high and low TB incidence areas.

There were 91 delegates on the day. The groupings of delegates by their predominant area of interest are as follows:

- 22 farming
- 26 Defra
- 9 other Government (including Devolved Administrations, Agencies and local government)
- 8 veterinary (including state vets)
- 12 wildlife and conservation
- 4 academics
- 6 members of the TB Advisory Group for England
- 2 auctioneers
- 2 others

3. The Programme

It was made clear from the outset that this event was funded by Government but independently organised and facilitated by Keystone, a conference and event management company, and that all views were valid and would be listened to. A professional facilitator, Nigel Grinstead, chaired the event. Nigel also facilitated the first bovine TB conference in 2006.

3.1 Layout

Delegates were divided among tables with 8 or 9 to a table. These were mixed according to interest so that each table, as far as possible, had a mix of farming, veterinary and wildlife interests. Defra attendees were split up among the tables and acted as table facilitators and scribes.

3.2 The morning presentations:

3.2.1 Introductory Speech and Update from the Chief Veterinary Officers (CVOs)

Debby Reynolds, Chief Veterinary Officer UK, gave the introductory speech. In this she described the current bTB situation in GB, including the apparent reduction in the number of new TB cases during 2006. She spoke about the introduction of phase two of pre-movement testing to all cattle over 42 days old in England and Wales moving out of areas of high TB risk and provided current figures of reactors found so far under this policy. On the subject of badger culling she emphasised that the position is not straightforward. She reiterated the Secretary of State's view that any decision on badger culling must be the right one, rather than a quick one. The CVO then went on to speak about other key developments since the 2006 conference, including the extension of the use of the gamma interferon blood test, the development of best practice husbandry advice by the TB Husbandry Group, the introduction in South West Wales of the Biosecurity Intensive Treatment Area and publication of the report of the Badger Found Dead Survey in Wales. She also made reference to the ongoing programme of research and highlighted that everyone present had a role to play in reducing the risk of bTB. This [presentation](#) is available to view on Defra's TB website.

The CVO UK was then joined on the stage by **Christianne Glossop**, CVO for Wales and **Charles Milne**, CVO for Scotland, who, in a question and answer session, gave updates of developments in their respective areas. All three CVOs then took questions from the audience, in a session chaired by Nigel Grinstead.

The CVO Wales made the point that although there were three Administrations, with different strategies in place, they were very aware of the importance of dealing with bTB across GB as a single epidemiological unit, whilst recognising regional differences. In Wales there is a focus on biosecurity, backed up with the latest scientific research and involving private vets in an Intensive Treatment Area (these were discussed in detail in the afternoon; see below).

The CVO Scotland reminded delegates of the different situation in Scotland where there is a low incidence of bTB. Last year there were 18 TB breakdowns in the Scottish national herd (which has about 15,000 herds); so far this year they have had 9 herd breakdowns. However, he stressed the importance of not being complacent, and made the point that bTB has been identified in both badger and deer populations in Scotland. Scotland has

introduced both pre- and post-movement testing and this is supported by farmers who have seen the benefits, both in terms of their continued low incidence of bTB and the premium that their stock, particularly breeding stock, can achieve at market; at the Perth bull sales, bulls from low TB risk areas were selling for thousands of pounds more than those from high incidence areas.

Both the CVO Wales and CVO UK acknowledged that those farmers in high risk areas were carrying a double burden in that they not only suffered the cost of bTB, but also the bulk of the costs for pre-movement testing. This view was backed up by some delegates. However, they stressed the importance of farmers knowing the disease history of any incoming stock.

Questions and comments from the audience:

In response to questions from the audience, the following points were discussed:

Disease trends:

The CVO UK said that there had been an apparent dip in new TB breakdowns during 2006, compared to 2005. Although this coincided with a change in the tuberculin used from that produced in the UK to a product produced in the Netherlands, further investigation indicated that this was unlikely to be the cause of the reduction and it is difficult to tell what the catalyst was. She warned against anyone reading too much into short-term changes in the figures and stressed that this is a well established disease and that reductions must be long-term and sustained before they could be truly seen as significant.

Pre-movement testing (PrMT) and costs to farmers:

The CVO Scotland said that spot checks suggest that in Scotland there is 70% compliance with pre-movement testing and 100% compliance with post movement testing. Further investigation of these results suggest that the 30% non-compliance is often down to incomplete paperwork or tests falling just outside the time allowed and that the real picture is likely to be better than this. They discovered some rogue trading with farmers moving cattle from high risk areas via low risk areas, but further tightening of the post-movement testing controls should counter this.

In response to a question about compensation and the PrMT cost benefit analysis, the CVO Wales stated that TB is an expensive disease for all concerned; industry, Government and ultimately the taxpayer and consumer. But the only way to reduce the cost is to reduce the incidence, and farmers need to know the disease status of animals they buy in. She reminded delegates that there is also an emotional cost to farmers and called upon the Farm Crisis Network who re-enforced this. Katrina Williams, Director of TSEs and Zoonoses, Defra, made clear to delegates that all aspects of the cost benefit analysis for PrMT had been made public and that Defra were open to any input that would help make their figures more accurate. They are also open to suggestions as to how to make PrMT more efficient. CVO UK accepted that some elements are estimates; this was inevitable, but endorsed Katrina Williams' call for help to establish true costs.

On a point raised about eradication versus containment and control, all CVOs said there should be no apology for attempting to contain the disease; that this was all part of the same continuum. In order to eradicate it you must first understand and control its spread.

bTB and Badgers:

Views were expressed from the floor about the TB situation in badgers; it was suggested that the duty of care to farm animals under the Animal Welfare Act should be extended to badgers to eliminate bTB from the badger population. Representatives from wildlife groups explained that most badgers with TB do not suffer; in most cases the only way to determine they have the disease is at post mortem. Endemic disease is part of wildlife ecology and controls populations; e.g. myxomatosis in rabbits and tick-borne encephalitis in weasels and stoats. The view was expressed that Government would not be interested in TB in badgers if it were not a zoonosis which also affects farm animals and therefore has an economic consequence. The CVOs accepted this point but the CVO Wales also said that eradicating bTB from the badger population would be a positive outcome for both badger and cattle populations.

3.2.2 Eradication of Bovine Tuberculosis; insights from Australian Success, Irish Research and Chilean Experience.

Simon More, Professor of Veterinary Epidemiology and Risk Analysis, University College Dublin gave a presentation of his work and experience. He began by explaining disease behaviour. He then gave an insight into Australia's (successful) experience in bTB eradication, and a case study from Chile of a substantial reduction in bTB prevalence on a large commercial farm, in each case using tools that are also available in Ireland and the UK. Professor More then spoke about how Ireland is tackling the disease, with badger culling playing a role. The overriding message from his presentation was that complex disease problems can only be solved if we understand, and then address, the key disease 'drivers'. This [presentation](#) is available to view on Defra's TB website.

Professor More emphasised that he did not represent the Irish Government. Further, he indicated that much of what he said was his personal opinion backed by research and experiences from Ireland and elsewhere.

Professor More's presentation was followed by a lively question and answer session. The main points are summarised here:

It was suggested that farmland in Ireland is more fragmented than in GB, resulting in more contact between individual herds and more animal movement. Therefore, it was suggested that Ireland should be treated as one large herd in tackling the disease. Professor More accepted that farmland in Ireland is fragmented. He also emphasised the need to have a holistic view of the many bTB drivers, and not to consider each in isolation. Drawing on

recent work (shortly to be published), he has indicated that pre-movement testing is likely to have limited impact on reducing the number of Irish bTB breakdowns.

Asked about differences between farming in the UK and Ireland, Professor More agreed that these may well be important in the epidemiology of bTB. He also mentioned, in terms of bTB, that there is a very stable infection picture (both in terms of geographical spread and over time) in Ireland, whereas the bTB situation in the UK can be considered an expanding epidemic (in both time and space).

In response to questioning about data, Professor More accepted that there are additional areas of research that need to be conducted. The current research agenda is broad, with the aim to identify and address each of the key factors constraining bTB eradication.

Professor More clarified the term 'perturbation'. This term is used to describe population disturbance following badger culling. There is conclusive evidence that this occurs, both in Ireland and the UK. In GB, there has been concern that badger perturbation subsequently leads to increased infection rates in local cattle. In Ireland, recent research is suggesting that this is not happening in Ireland; on the contrary, they are measuring a significant reduction in cattle infection risk on farms surrounding areas of reactive badger culling.

As Ireland had a lower density of badgers than in England, where population density can be as high as 20-30 badgers per square kilometre, it was asked whether research from Ireland suggests that fewer badgers means less bTB? Professor More cautioned that the ecology in Ireland was different to GB and that he had no detailed knowledge of the GB situation. In the Irish four area project, badger culling was associated with a reduction in bTB prevalence in those that remained. As yet, spatial differences in the prevalence of bTB in Irish badgers remains uncertain.

Questioned about how important biosecurity had been in Ireland, Professor More said that it was certainly important. Work was currently going on to measure which biosecurity measures are the most important and where the critical points of contact are.

He compared the Irish and GB situation to other countries such as Australia and parts of Europe which are progressing more rapidly in terms of animal health. He suggested that a key factor was a very different dynamic between Government and industry. He feels that this issue will also be critical in both GB and Ireland, both in terms of bTB and other animal health issues.

Replying to a question about a possible correlation between herd size and bTB, Professor More said this was certainly the experience in Ireland. The reason was partly biological, but also 'false positive' reactors became increasingly common with increasing herd size.

Some delegates felt there were similarities between Ireland, SW England and Wales and were interested in the result in Ireland of tackling the wildlife reservoirs. Professor More indicated that there had been a reduction (of 40% or so) in the incidence of bTB in Ireland since 1989. This was significant but not huge; there is still re-infection and opportunities for improvement. In some (but not all) of the highest incidence areas, the improvement has been dramatic. These results are not surprising, given the complex series of disease drivers that are present, and imperfect tools (at present) to address all of these simultaneously.

3.2.3 Update on Badger and Cattle Vaccine Trials and Next Steps:

Glyn Hewinson from the Veterinary Laboratories Agency gave a presentation providing an update on progress in developing a vaccine. This [presentation](#) is available to view on Defra's TB website.

3.3.4 Gamma Interferon Testing: This presentation on the extension of the use of gamma interferon testing, was given by John Montague, Defra Veterinary Advisor. This [presentation](#) is available to view on Defra's TB website.

3.3.5 Central Science Laboratory Footage of Badgers in Farm Buildings

Before lunch, two short films of badgers in farm buildings were shown. These films were taken as part of ongoing research by the Central Science Laboratory in collaboration with Sussex University. They show badgers accessing food stores and coming into close (nose to nose) contact with housed cattle. These [films](#) can be viewed on the British Cattle Veterinary Association website. Andy Biggs from the BCVA introduced the clips and made the point that there are two basic approaches available to vets and farmers to reduce any infectious disease and that included bTB. The first is to reduce the duration of infection, which they are doing in cattle by testing, culling and removing animals, but not in wildlife populations. The second is to reduce the rate of new infection – and that means understanding the possible sources of new infection.

3.4 The afternoon sessions

The afternoon focused on ways that interested parties could work together to reduce bovine TB.

3.4.1 Overview of Routes of Transmission

Andy Paterson, Defra Veterinary Advisor, opened the afternoon session with a reminder of the routes of infection and drivers of bTB, using a transmission diagram. This [presentation](#) is available to view on Defra's TB website.

3.4.2 Case Study: Welsh Assembly Government and Royal Veterinary College - Biosecurity Intensive Treatment Area and Scoring Tool.

Anton Lowe, a cattle vet practicing in a high incidence area in Pembrokeshire, West Wales, presented details of this new initiative, funded by the Welsh Assembly Government, which involves private vets and farmers working together to manage biosecurity. A biosecurity scoring tool developed by the Royal Veterinary College has been used to support the identification and management of risk factors for a TB herd breakdown. This [presentation](#) is available to view on Defra's TB website. Anyone interested in seeing the biosecurity scoring tool should contact Mark Alexander at bovinetb@wales.gsi.gov.uk.

Anton was joined on stage by Steven James from the NFU Cymru who is a farmer in an Intensive Treatment Area (ITA) and Andy Biggs from the British Cattle Veterinary Association (BCVA), to form a discussion panel. The main points from this discussion are summarised below.

Steven James made the point that he was a well-informed farmer who had lived with bTB on his farm for 14 years. His farm is bounded by a road, a railway, a river and one other farm. He exchanges information with his neighbour about their herds' health status and believes he was doing everything right on the cattle front; but still learnt things about the wildlife through being part of an ITA.

Anton Lowe made the point that he had been practising in the area for many years but being part of the ITA had allowed him to become better acquainted with his farmers and their farming practices.

In one part of the ITA, several farms bought replacements from a farm in a low incidence area. This particular farm had not been tested for 3 years 5 months, but had no history of bTB. The incoming cattle introduced bTB to the Welsh farms. Anton said this reinforced the case for annual testing on all farms, though a view from the audience was that routine national annual testing would not be cost effective, but that in this instance it would have made sense for the animals to have been pre-movement tested. Andy Biggs made the point that farmers should ask questions about TB test history and apply some risk aversion when buying stock in. If a herd hasn't been tested for 3 years, even if it is from a low incidence area, then it makes sense to pre-movement test or isolate the incoming cattle and post movement test them. Some farmers regularly do this at their own expense.

Andy Biggs emphasised that farmers and vets need to start treating bTB as an infectious disease rather than falling into a routine of test and cull.

Professor More made the point that elsewhere in the world, most notably Australia, shared ownership of the problem between industry and Government was critical to success. It was recognised that this was easier in a country like Australia where TB was not wildlife driven or where the wildlife reservoir could be more easily dealt with.

A point was made that the skin test is a reasonable herd test, but it is not accurate enough when you are talking about testing an individual animal e.g. dairy farms bringing in a new bull. It was asked whether the gamma interferon test would be better? John Montague said that gamma interferon was marginally more sensitive than the skin test but not suitable for routine herd screening; it was about risk reduction not elimination.

In response to a question on the farmer participation in the ITA, Steven James said that he had spoken to some farmers who had decided not to take part in the scheme because nothing was being done in the trial to address the wildlife issues. The panel agreed that, as farmers tighten up on all other aspects, it becomes more important to be able to tick the wildlife box.

There was some discussion on how the panel would sell badger culling to the public. Andy Biggs believed that if the public were educated on the issues and the costs they would not be as opposed. He said this was shown during the public consultation period.

Anton Lowe made the point that culling needed to be a long-term strategy not a one-off; we still don't know the long-term perturbation effects of sustained culling. Andy Biggs reinforced this saying that disease control is a continuing process; you can't just do a bit of culling and expect that to have a sustained effect. However, it was recognised that other measures were needed, including a vaccine. But, even if a badger vaccine were available today, there will be a lag time. A vaccine only prevents animals contracting the disease, it doesn't cure those badgers who are already infected. There would be a lag while the infected badgers died out.

3.4.2 Table discussion

Largely due to the intense interest in Professor More's presentation and the prolonged discussion following this and a similarly prolonged discussion following the presentation by Anton Lowe, there was not as much time as planned for round table discussions. However, the tables were asked to discuss their conclusions from the day. Outcomes from these table discussions were recorded by:

- a. scribes from each table recording the main points from discussions
- b. Keystone taking notes from the feedback sessions

There were common themes raised on many of the tables. We have endeavoured to cover the main conclusions and recurring themes from the discussions here.

Professor Simon More's presentation

There was general consensus that Professor Simon More's presentation had been very interesting and informative. There were parallels to be drawn between the Irish and the GB situation and lessons to be learnt; however, there were also significant differences and it was important to understand these.

Understanding and dealing with each of the key disease drivers is critical, if we are ultimately to be successful.

Of particular interest was Professor More's suggestion that elsewhere the disease had been most effectively tackled when Government and industry had shared both the responsibilities and costs of eradication. However, it was also noted that in GB the position was more complicated because the badger is protected by law.

Biosecurity

There was a feeling that farmers are much more aware of biosecurity than previously, particularly in high incidence areas, but improvements are still required. It was felt that farmers in low TB incidence areas are not as aware as they should be and there is a tendency to think it is not their problem.

It is important that all farmers are as informed and honest as they can be about the disease history of their own herds and any animals they bring onto their farms or sell on to other farms.

Government too could do more; in particular the delay in removing TB reactors from farms is unacceptable.

Wildlife Measures

Many delegates felt there is an increasing case for a badger cull as part of a programme of measures. A key piece of research, the final report of the Independent Scientific Group (ISG), to be published in June 2007, is much anticipated.

However, there was general acceptance that any culling would not be straightforward. It would be logistically difficult, costly and the public would need to be persuaded. Badger culling in isolation would not be effective; it would need to be part of an ongoing, joined up strategy to eradicate bTB.

A concern was expressed about the pro culling lobby's demand for a badger cull without a clear strategy on what the methodology should be, and their willingness to ignore some scientific evidence. Other delegates expressed their concern at the possibility of badger culling.

There was general consensus that any culling should be about reducing numbers not eradication of badgers, even at a regional level.

Overall

The atmosphere at the end of the day was very positive. It was stated that there appeared to be an increasing willingness from different groups, often with strongly held and very different views, to engage with each other. The day was felt to be a good example of this. There often tends to be a focus on stakeholder differences, which needs to be overcome.

4. Evaluation

Delegates were given an evaluation form to complete in the final 5 minutes of the event. Over 60% of delegates completed an evaluation and the results were, almost entirely positive, with everyone agreeing the day had been a good investment of their time and that discussions had been productive and constructive. The presentations were all highly rated, but Professor Simon More's presentation and the subsequent question and answer session was voted the most useful and interesting part of the day by over 50% of those who completed the evaluation. A summary of the feedback is provided as an annex to this report.

ANNEX

EVALUATION FORM

It would be helpful if you could take a few minutes to complete this

evaluation form so we can consider your feedback when planning other

similar events.

52 forms were completed out of a possible 98 people at the event.

1. Conference

Please indicate your opinion below where **1 is 'very satisfied'** and **5 is 'very dissatisfied'**.

Were you satisfied with the:

| | 1 | 2 | 3 | 4 | 5 |
|--------------------------------------|----|----|----|---|---|
| • Pre-conference organisation | 25 | 12 | 10 | 3 | 0 |
| • Organisation at the event | 32 | 18 | 2 | 0 | 0 |
| • Quality of venue | 21 | 20 | 9 | 0 | 0 |
| • Catering | 26 | 21 | 4 | 0 | 0 |
| • Quality of presentations (AM) | 29 | 18 | 2 | 1 | 0 |
| • Quality of presentations (PM) | 23 | 20 | 7 | 1 | 0 |
| • Quality of facilitation | 35 | 16 | 1 | 1 | 0 |
| • Discussion & feedback session (AM) | 20 | 20 | 6 | 2 | 0 |
| • Discussion & feedback session (PM) | 19 | 23 | 7 | 4 | 0 |

2. Process & Outcomes

Please indicate your opinion of the event below, where **1** is 'strongly agree' and **5** is 'strongly disagree'.

Today's event:

| | 1 | 2 | 3 | 4 | 5 |
|--|----|----|----|---|---|
| • Gave me a chance to contribute my concerns and ideas | 11 | 25 | 14 | 0 | 0 |
| • Provided a good forum for discussion. | 17 | 25 | 4 | 3 | 1 |
| • Allowed participants to express a wide range of views | 21 | 25 | 4 | 3 | 0 |
| • Allowed my views to be taken into consideration. | 8 | 23 | 15 | 2 | 0 |
| • Gave me an insight into other stakeholders' views | 24 | 19 | 6 | 0 | 0 |
| • Will change my organisation's (or my own) behaviour or practice. | 6 | 10 | 18 | 8 | 2 |

3. Overall

Please indicate your opinion of the event as below where **1** is 'strongly agree' and **5** is 'strongly disagree'.

Today's event:

| | 1 | 2 | 3 | 4 | 5 |
|---|----|----|----|----|---|
| • Broadened my understanding of the current issues surrounding bovine TB. | 17 | 20 | 8 | 3 | 0 |
| • Was productive/constructive | 17 | 19 | 11 | 2 | 0 |
| • Was a worthwhile investment of my time | 20 | 19 | 10 | 0 | 0 |
| • Could be improved | 0 | 13 | 14 | 11 | 5 |

6. What was the most useful/interesting part of the day?

- All of it
- Simon More's presentation – particularly valuable as a) it was independent b) based on science c) looked at long term view d) it was action orientated. It should have been the keynote address
- Simon More's talk on experiences in Australia, Chile and Ireland
- Definitely Simon More's presentation – both informative and interesting. Kept all audience entertained and every one went away learning something new.
- [A total of 18 questionnaires identified Simon More's presentation as the most useful/interesting part of the day]
- Update on vaccine development

- Biosecurity ITA
- Vaccination update
- International perspective
- Presentation by experts
- Hearing from the academics
- Discussions
- International perspective
- Showing what cattle industry is trying to do
- Clearly hearing others views and opinions and learning from Oz
- Debate
- Forum for meeting/discussion with other group/orgs
- Q&A sessions
- Anton Lowe presentation
- Meeting other parties
- Table discussions
- Talk on biosecurity scoring system in Wales

7. What was the least useful/interesting part of the day?

- Everything was relevant
- Quality of Welsh example presentation
- Overview of routes of transmission
- Not enough time left for table discussions
- Badger videos
- Presentations from the CVOs
- Transmission overview
- The YIFN presentation
- The polarity does not help
- Should have been after ISG reports
- Shortness of time for table discussions
- CVO UK saying PrMT had reduced incidence and then saying don't draw long term conclusions from short term statistics. She got it the wrong way round.
- Talk on international experience
- Polarised views from some of the audience
- Hijacking of Q&A by representatives from wildlife groups
- Repeated interventions by certain individuals