

## **BVZS' response to DEFRA Draft Strategy for Achieving "Officially Bovine Tuberculosis-free Status for England"**

We have read with interest the Draft Strategy for Achieving "Officially Bovine Tuberculosis-free Status for England" (July 2013) and the follow up strategy for the Edge area (August 2013). Overall we would like to congratulate DEFRA on a comprehensive risk-based approach to the control of Bovine tuberculosis (bTB) in cattle.

Whilst we continue to disagree with the inclusion of badger culling as a method of controlling the disease in cattle for reasons of scientific robustness relating to the both the potential effectiveness and humaneness of any cull, we do support the raft of other measures suggested to control the disease in cattle.

Our specific comments on various parts of the strategy document are given below.

### **1. The risk-based strategy**

- a) Splitting the country into different areas with different policies according to bTB risk makes great sense and is fully supported.
- b) We agree with the risk-based approach and division of the country into the three areas; Low Risk Area (LRA), Edge and High Risk Area (HRA) as appropriate.
- c) Having targets and a time scale is a sensible approach provided these are realistic and adhered to.
- d) The epidemiological rationale and objectives for the three areas appear to be very sensible.
- e) We would suggest that the cattle control and biosecurity measures suggested in each area do not always appear to be stringent enough.
- f) We are surprised that some measures are described as 'cross-cutting' when we would consider these measures to be essential to bTB control.
- g) A delay in making risk-based trading mandatory appears to us to be a mistake and will further allow the disease to spread geographically.
- h) The high level of compensation paid in England compared to other countries should be based upon adherence to risk-based trading rules and adoption of strict biosecurity.

### **2. Biosecurity**

- a) As stated above we believe that biosecurity measures should be considered an essential part of the strategy and not just optional voluntary measures.
- b) This is especially essential in the Edge areas.
- c) Good veterinary (OV) training will be essential in order to put vets in the best possible position to advise farmers re biosecurity, risk-based trading and badger controls. This will need to include some understanding of badger ecology, vaccination and appropriate badger-related farm biosecurity.
- d) Stopping badgers' access to farmyards, not just food and water troughs is essential, as such animals can be of particular risk to cattle. Research suggests that simple deterrents are extremely effective.

### **3. Low-risk areas**

- a) Would like to see greater use of gamma interferon gamma (IFN $\gamma$ ) tests in the LRA and Edge areas.
- b) The use of gamma routinely for OTFS herds and around OTFW herds would prevent 20% of cases being missed using the skin test (SICCT).
- c) Gamma testing should be used for all herd breakdowns in the LRA
- d) The use of the 'severe' interpretation of the SICCT is also to be encouraged
- e) We believe that movement of cattle from the HRA to LRA is an extreme risk to the spread of disease and should only be allowed to occur under strict conditions if at all. As suggested in the strategy document, the complete ban of cattle movements from HRA to LRA would not impact significantly on the cattle industry.

#### **4. Edge area**

- a) In the Edge area we again feel that risk-based trading should be mandatory not voluntary, although we are pleased to see the suggested linkage of top-up compensation to biosecurity in this instance.
- b) Gamma testing should be used in all OTFS breakdowns as well as OTFW breakdowns in the Edge and not just be discretionary.
- c) We were disappointed to see that badger vaccination in the Edge will only be 'encouraged'. We believe that the use of injectable Badger BCG should be carried out in a co-ordinated manner in the Edge area. The involvement of wildlife trusts and other NGOs could form an important part of vaccine delivery.
- d) We believe a badger RTA survey in the Edge area to be essential.

#### **5. High-risk areas (HRA)**

- a) The stated estimates that up to 50% of herd breakdowns in HRA are due to badgers, still means that over 50% are due to cattle-related factors. If extreme forms of badger control such as culling are to be employed by the government in the HRA then all cattle-related issues must equally be aggressively addressed.
- b) The strategy document describes both the high level of cattle remaining undetected in HRA herds (up to 21%) and the large number of recurrent breakdowns possibly attributed to skin testing regime (up to 50%). This together with the large number of cattle movements occurring in the HRA, suggest that cattle control measures in this area must be substantial.
- c) Emphasis is put on the fact that increased herd breakdowns in the SW correlate with badger density. There is no evidence to support badger density and bTB breakdowns in cattle being directly correlated in this way. Whilst we would agree that bTB incidence in cattle has increased, this effect is likely to be multi-factorial and include a reflection of the increased number of cattle tests taking place.
- d) As in the Edge area we believe that risk-based trading in HRA should be mandatory not voluntary, although we are pleased to see the suggestion of linkage of top up compensation to biosecurity in this instance. We feel the financial penalties of failing to ensure adequate risk-based trading and biosecurity measures should be greater.
- e) We are interested to understand how cattle keepers will be 'enabled' to identify biosecurity weaknesses. As stated above, appropriate OV and farmer training will be required to deliver good quality biosecurity measures.
- f) We would encourage the use of IFNg testing in all OTFS and OTFW breakdowns in the HRA.
- g) We are surprised and disappointed that there is no proposed use for the Badger BCG vaccine in at least some situations in the HRA. Even if badger culling is to be expanded as suggested, there must be some situations in which a co-ordinated delivery of vaccination using wildlife groups is appropriate (e.g. where land access for culling is not possible, around cull areas that lack geographical boundaries) and would be beneficial.
- h) We believe a badger RTA survey is needed to determine the extent of the 'reservoir' of infection in badgers in the HRA in order to quantify the stated 'endemic' disease in badgers.

#### **6. Cattle vaccine**

- a) We would encourage and fully support the further development of a cattle BCG vaccine. Recent advertisements for suppliers to tender as part of this process (*Veterinary Record* 173,8) would suggest that development is progressing well. We hope a genuine incentive to develop this tool will continue and allow a vaccine to be used in the HRA before the predicted 2023 date.

#### **7. Badger vaccine**

- b) An injectable BCG vaccine for badgers has been licensed since 2010. We are disappointed that research into 'attitudes and barriers' to using the vaccine are only being suggested at this late date.
- c) We are equally disappointed that the vaccine has not been used more extensively to date and that the vaccine does not form a more important part of the strategy proposed.

- d) Although we accept that an injectable vaccine is not ideal in terms of its deployment, we believe that the vaccine could be used effectively and appropriately in both the Edge area and HRA.
- e) We are aware that wildlife groups and other NGOs are currently using the vaccine, but this is in an un-coordinated manner. We would encourage a coordinated approach to the use of Badger BCG in the new strategy.
- f) We continue to support the development of an oral badger vaccine.

#### **8. Involvement of other non-bovine species**

- a) We are pleased that the Government's approach to *M. bovis* infection in non-bovine species (other than badgers) will be evidence based and proportionate to risk. We would encourage and support the continuing of appropriate surveillance work.
- b) We are happy that the Government's approach to non-bovine domestic species is also proportionate based on current evidence, but would ask that these measures should be maintained and not diluted in any way, for example the quality of meat inspection should not be reduced.

#### **9. New developments for disease control**

- a) We applaud a coordinated and multidisciplinary approach to developing new tools and better understanding the epidemiology of the disease.
- b) We welcome the development of new live tests for badgers and new methods for obtaining clinical samples without the need for sedation or anaesthesia.
- c) We would also encourage the further development of sett-based tests to identify shedding of infection from infectious animals.
- d) We support the consideration of alternative badger control methods (e.g. reproductive control, vaccination, understanding epidemiology).
- e) Any improvement in selection of cattle that reduces susceptibility to bTB is to be encouraged. It should be remembered however that 'infection' with *M. bovis* and 'infectiousness' (development of clinical TB that can be spread to others) are not the same thing and are differentiated very differently in human medicine.

#### **10. Governance, delivery and funding**

- a) We broadly support the suggested initiatives provided that the quality of what is provided is maintained when any changes occur.
- b) We support and encourage the use of practicing veterinary surgeons in the delivery of on-farm advice, provided that those delivering such services are adequately trained to do so.
- c) We believe that mandatory risk-based trading is necessary to both limit costs and prevent the transmission of bTB.

#### **11. Tuberculosis risk to humans and animals**

The risk to both humans and pet animals is on occasions overstated within the draft strategy document. Bovine TB is a cattle disease with economic implications. Neither currently available figures, the EFSA (European Food Standards Agency) or the ECDC (European Centre for Disease Prevention and Control) support the suggestion that *M. bovis* in the UK is a zoonotic risk. However, meat or milk-based routes for infection should be largely weeded out by inspection and pasteurisation, but there have been recent publicized associations between TB-positive herds and infections in people or pets.

#### **12. Culling of wildlife as a strategy for control**

Care should be taken when interpreting the involvement and culling of wildlife elsewhere in the world and attempting to draw parallels between these situations and England. Badgers are very different to other wildlife in that culling has been shown to potentiate the transmission of disease through perturbation. Reducing the population of badgers may be logical but is unlikely to have the desired effect of lowering bTB levels in cattle.

Comments on the comparison with other countries re wildlife control being wrong:

- i. **Australia** - Small pocket of Water buffalo occurred only in the northern territories. bTB was eradicated in most of Australia without killing any indigenous wildlife. Eradication came about due to strong farmer buy in, movement controls and aggressive use of herd testing of cattle with whole herds removed on a single positive test.
- ii. **Scotland** does have a badger population but remains OTF.
- iii. **Michigan** - White-tailed deer exist over most of the USA and are not considered to be a bTB reservoir elsewhere where areas are OTF. White-tailed deer in Michigan became a problem due to transmission of disease as a result of artificial feeding of the animals by hunters in the winter months.
- iv. Wildlife control in **NZ** is aggressive and not universally popular (e.g. pets are poisoned). Possum are not indigenous so there are other reasons to want to eradicate them. Despite such aggressive wildlife controls bTB is not under control in many areas of NZ and the degree of control of the disease in cattle is not linked to possum removal. Successful control of the disease in cattle has arisen as a result of multidisciplinary control methods predominantly in cattle and has not come about purely as a result of wildlife control.
- v. The badger density in **Ireland** (approx. 1/km<sup>2</sup>) is very different to England (up to 20-30/km<sup>2</sup> in high density areas) so perturbation effects are different. Snaring has been used in Ireland and aim is to eradicate badgers from some areas - neither is acceptable in England.

Most EU states that are OTF (as in the map included in the consultation) achieved this status without culling any wildlife. Many of the northern states have a badger population, as well as other potential wildlife reservoirs of infection.

### 13. Control of the disease in badgers

- a) Although the document says that it aims to ‘maintain biodiversity’, no definition is given of what this means, what the targets are for such achievements nor how this will be monitored.
- b) The strategy document does much to emphasize the risk to cattle from badgers. The available evidence would suggest that spread of bTB occurs in both directions (badger-cow and cow-badger). It is essential that cattle are prevented from infecting badgers especially in the Edge and LRA where a wildlife reservoir is less likely to exist.
- c) We continue to disagree with Government policy on badger control and badger culls. The pilot culls are unscientific and we have yet to receive any information to convince us that the welfare of badgers can be assured. Both of these issues need to be addressed before consideration is given to the pilot culls being ‘rolled out’ across the HRA or considered for inclusion in the Edge area.
- d) The summary of the RBCT findings within the Strategy document (p 62), are both simplistic and misleading.
- e) Where the pilot badger culls are taking place we would encourage a more completed analysis of the impact of these upon both the badger population and upon bTB in cattle and badgers.

Below is the map of the zones

# Risk-based strategy

Working towards bovine TB free status in England

#tbfree

## High Risk Area

### General characteristics

- Infection appears to be endemic
- Infection in wildlife (badger population)
- High incidence and repeat breakdowns

### Main objectives

- In the short term, to reduce incidence rate; and improve epidemiological understanding
- In the medium term, to address the disease in livestock and in wildlife; and reduce herd incidence
- In the long term, to achieve a continuous and sustained reduction; and to achieve OTF (Official TB Free status)

### Preferred strategy

Includes wider roll-out of badger culling subject to successful pilot culls; enhanced cattle surveillance and tighter TB herd breakdown management measures; and deployment of oral badger vaccine and cattle vaccine as soon as available.

## Low Risk Area

### General characteristics

- Low incidence rates and low reoccurrence
- Relatively short breakdown duration
- No recognised wildlife reservoir

### Main objectives

- In the short to medium term to continue to protect the current Low Risk Area; deal immediately with incidents; further reduce the very low incidence rate; and expand the OTF coverage

### Preferred strategy

Includes enhanced cattle surveillance and tighter TB herd breakdown management measures.

## Edge Area

### General characteristics

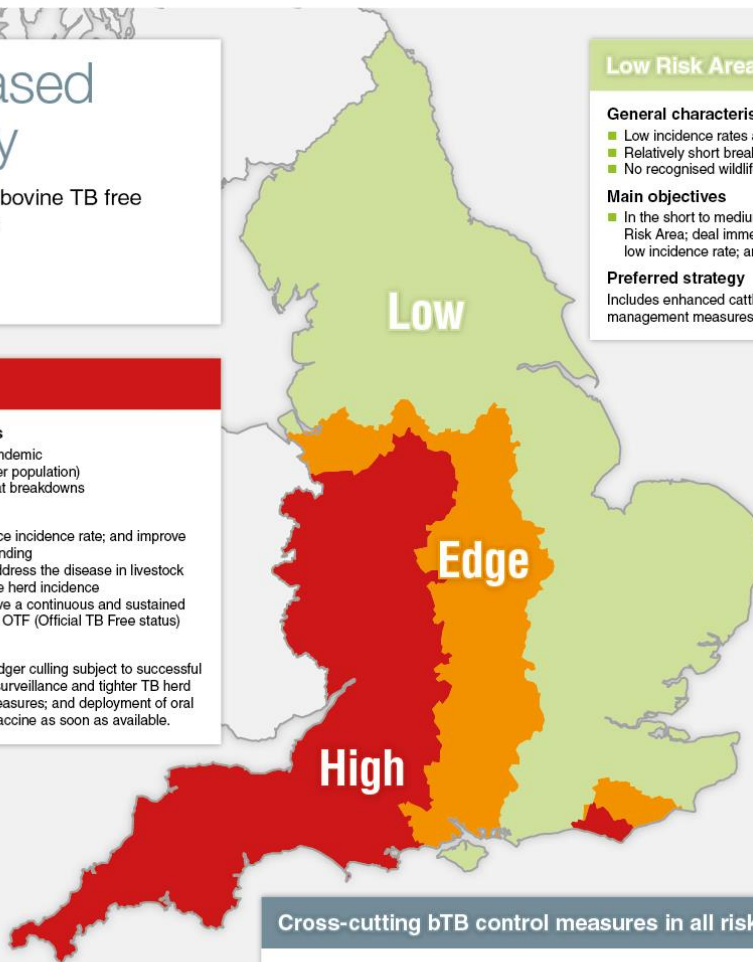
- Infection is potentially currently spreading
- Incidence varies from place to place so approach will be tailored

### Main objectives

- In the short to medium term, to stop the geographical spread of disease and begin to reduce the incidence rate
- In the longer term, to reverse the spread of disease, reduce the incidence rate and achieve OTF (by county)

### Preferred strategy

Includes additional advice on risk-management; encouragement for local badger vaccination; risk-based surveillance for TB in badgers; and enhanced cattle surveillance and tighter TB herd breakdown management measures.



## Cross-cutting bTB control measures in all risk areas

Improved Biosecurity to prevent cattle-to-cattle and badger-to-cattle spread of bTB, including

- Risk-based trading;
- On-farm security; and
- Using compensation to reward good practice on biosecurity

Improving advice and guidance to farmers in partnership with the food and farming industry, levy bodies and the veterinary profession.

Improving compliance and enforcement. The Government will work with the farming industry and delivery partners to monitor compliance levels and find practical, proportionate and effective ways to improve them.

Tackling TB in non-bovine species, including badgers; South American Camelids; other farmed animals including sheep and pigs; companion and zoo animals; and wild mammals.

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