Proposals for new bovine TB control measures: tackling transmission between cattle herds.

January 2014

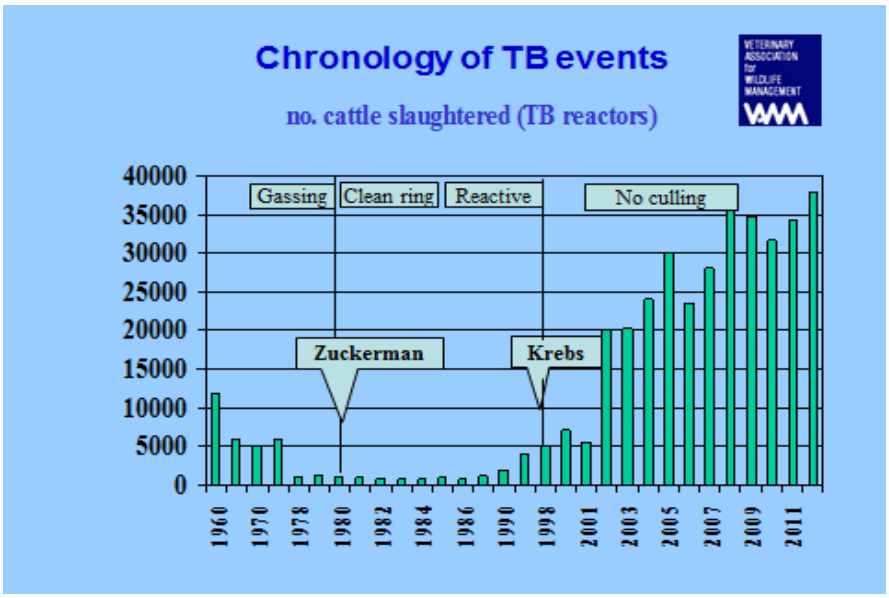
Summary
The latest cattle control measures proposed appear sensible and logical. But since cattle to cattle transmission is not a major factor in the epidemiology of bovine TB, the new measures, whilst prudent, cannot be expected to have a major impact on controlling the spread of disease.
We submit that the new cattle control measures should not deflect the Government from the necessity of removing the huge burden of infection that presently exists in large parts of the badger population.
Furthermore we submit that a substantial reduction in the national badger population would radically mitigate the risk of transmission of bovine TB from badgers to cattle.

Introduction
The Veterinary Association of Wildlife Management is moved to respond to the latest consultation announced by DEFRA (November 2013) on their proposals for tackling transmission of bovine TB between cattle herds but we doubt it merited a yet another large scale and expensive consultation. Furthermore we worry about the thinking behind the proposals and repeat the concern we expressed in our last submission (September 2013) of the emphasis put on cattle control measures, since it is known that cattle to cattle transmission is not the major factor in the epidemiology of the disease.

Cattle to cattle transmission
As long ago as 1995 the CVO, on the basis of recorded field outbreaks, ascribed 90% of herd breakdowns to be of badger origin and this situation won't have changed since then. This statement was based on several complementary pieces of evidence:

a. The same spoligotypes cluster around outbreaks. If cattle to cattle transmission were a major factor there would be a wide spread of different spoligotypes around outbreaks.
b. Herd breakdowns seldom involve more than 2-3 animals indicating that the disease does not readily spread through the herd. Greater numbers of reactors are probably due to multiple exposures to infected badgers.
c. It is extremely difficult to transmit the disease experimentally to naïve susceptible animals placed in close contact with clinically diseased animals over several months. A knowledge of the contrasting pathology of the disease in cattle and badgers, as described by Gallagher and Clifton Hadley (2000) explains why this is so. Cattle tend to wall off the organism within fibrous tubercles, particularly in lymph nodes, whereas in badgers the disease is more diffuse or florid leading to massive excretion of bacteria in urine, faeces and from the respiratory tract.

The chart below shows vividly how bearing down solely on the disease in cattle since 1997 has not been effective in controlling the disease. Furthermore if cattle to cattle transmission was the major factor in the epidemiology of the disease it begs the question of why were these new cattle control measures not put in place 20 years ago when the disease started to take off. And why was the disease nearly brought under control in the 1980s with the cattle control measures of the time?



Thus the new cattle control measures may be regarded as prudent but they should not be expected to have a significant impact in controlling the spread of disease. We do not feel competent to comment on the measures in detail.

Conclusion: Concentration on cattle control measures should not deflect the Government from the necessity of removing the huge burden of infection that presently exists in large parts of the badger population. This should involve culling of infected badgers underground, as humanely as possible, targeted by PCR testing.

Reduction of the overall badger population

There can be little doubt that the problem of bovine TB is hugely exacerbated by the burgeoning badger population across the country. Between the two national surveys published in 1988 and 1997 a 77% increase in numbers was identified. This would give a population of 450,000 adult animals in 1997 from the earlier figure of 250,000 in 1988 and assuming a similar rise in the last decade it seems reasonable therefore to estimate current numbers to be not less than 800,000.

The badger, a large mammal with no natural predators, is a classic example of a population out of control through lack of management. It is not an endangered species and no longer merits its protected status. This should be removed and similar legislation, as for deer, including a close season, put in place whereby local landowners and farmers are allowed to control the badger populations resident on their properties. Such a measure would have a substantial impact not only in controlling bovine tuberculosis in both badgers and cattle, but would reduce damage to the countryside, reduce predation on vulnerable wildlife and relieve the badger population itself from the adverse effects of overpopulation, particularly starvation and disease.

Footnote

Most of the points made above, including the need to reduce the overall badger population, were contained in our two earlier submissions to DEFRA: *A response to the Government's consultation on bovine TB and badger culling*, December 2010, and *A response to the Government's consultation on a Strategy for Achieving "Officially Bovine Tuberculosis-Free" Status for England*, September 2013, both of which may be found on our web site at:

www.vet-wildlifemanagement.org.uk

L.H.Thomas, Secretary
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