

**The Joint Committee on Agriculture, Food and the Marine -Update on TB Eradication Programme  
11/12/18**

**Representatives from DAFM: Michael Sheahan, Colm Forde, Eoin Ryan, Rosanne Greene & Philip Breslin.**

I thank the Committee for giving the Department the opportunity to update you on developments with the bovine TB eradication programme.

As you may be aware, a TB eradication programme has been in operation in Ireland since 1954. As TB is a zoonosis, (a disease of animals that can transmit to humans) the initial focus on dealing with TB in cattle was driven, at least in part, by efforts to reduce TB in the human population. At that time, many families in Ireland had members suffering from TB (commonly known as “consumption”) – One study estimated that approximately 12 000 people died from TB in Ireland in 1904, and that infection and death rates remained high throughout the 20’s, 30’s and 40’s. In cattle, TB was very widespread, with about 17% of all cattle infected in the mid 1950’s. Many cattle suffered from clinical signs of TB, and TB mastitis and carcase condemnations were common. The start of the TB eradication campaign in cattle in Ireland in 1954 coincided with the ultimately successful post-war campaign to control TB in the human population in Ireland, spearheaded by Dr Noel Browne.

Globally, TB in humans remains an important disease, with an estimated 9 million people developing TB and 1.5 million dying from the disease. Thankfully TB in humans in Ireland is now a relatively rare occurrence, thanks to the major reduction in TB in cattle, the control measures in the human population initiated in the 1950’s by Dr Noel Browne, and the widespread pasteurisation of milk.

In addition to the human health benefits to controlling TB in cattle, a TB Eradication Programme is also essential to facilitate trade. Having a national programme in place to eradicate TB is a requirement of EU Trade Law. As a country that exports 90% of our agricultural produce, complying with trade law is essential in supporting the incomes of Irish farm families.

*Figure 1* gives an indication of the scale of the reduction in TB levels in cattle since the programme started in the mid 1950s. TB reactor numbers reduced from initial peaks of more than 150 000 in the early 1960s. Progress then stalled somewhat and reactor numbers remained at 30-40 000 per annum throughout the 1980 and 1990s. During this time it became evident that a significant wildlife reservoir, namely the badger population, was a major impediment to further progress in reducing TB levels in cattle. Ireland’s progress in eradicating TB was stymied by this inability to effectively address the transmission of disease from wildlife to cattle. Since the Wildlife Programme has been established in the late 1990s it has provided a significant boost to our efforts in eradicating TB. As badgers are a protected species under the Berne Convention, there are strict controls in place to ensure the sustainability of the native badger population is not put at risk. In order to put a badger culling programme in place transmission between badgers and cattle must be evident from an epidemiological assessment of a bovine TB breakdown by the Department’s veterinary inspectorate. A licence is then provided by the National Parks and Wildlife Service which ensures culling can only take place on a maximum of 30% of the total agricultural land area in Ireland. While these measures are important to protect the badger, it has been argued that it poses challenges in eradicating bovine TB. However, after years of research a BCG vaccine has been successfully trialled on badgers in Ireland. The research concluded that vaccinating badgers in an area is not inferior to a culling

programme in addressing TB. This represents a fundamental shift in our ability to eradicate TB as wildlife transmission can now be addressed in more than 30% of the country at a given time using both culling and vaccination. Modelling work from the Centre of Veterinary Epidemiology and Research Analysis within UCD now calculate that eradication of bovine TB is feasible (but will take many years) following the introduction of the vaccination programme which was announced by Minister Creed in January.

Since the initiation of our badger programme, the number of reactors has steadily declined from approximately 44 000 per annum to our current levels of 16-18 000 per annum and the proportion of herds affected by TB in a given year has halved. In 2017, herd incidence in Ireland was 3.47%. Herd incidence levels in Northern Ireland, Wales and England are considerably higher at present.

While our wildlife programme is important, it remains the case that the primary transmission path for TB is from cattle to cattle and the programme has extensive measures in place to address this. Every herd in the country is required to have an annual screening skin test. This is performed by Private Veterinary Practitioners (PVPs) who have a crucial role to play in helping achieve eradication. Thankfully, over 96% of herds in Ireland will test clear on this annual herd test. When TB is identified in a herd, the Department's Veterinary Inspectorate will engage with the farmer in eradicating TB from the herd. Another diagnostic test can be used in herds where disease has been identified - the Gamma Interferon Blood Test. It can identify disease at an earlier stage of development than the skin test and so help remove residual infection from a herd quicker. Other risk-based testing is undertaken under the Programme. For example, if a herd experiences a TB breakdown with a number of reactor animals, a contiguous programme is established. This means herds neighbouring the breakdown herd will be tested as TB may have spread to them from the index herd.

Research provides the key underpinning evidence that informs policy amendments to the TB Programme. Just last week, the Department brought together the TB research community from across Ireland with attendees also coming from Northern Ireland and the UK. Their work helps enhance our understanding of the epidemiology of TB and how we can most effectively eradicate it.

As you are probably aware, Minister Creed has committed to eradicating TB by 2030. When achieved, this will represent a major success for Irish agriculture and particularly Irish farmers. However, it will only be possible if the current eradication programme is enhanced and all stakeholders support the programme. International experience from Australia and New Zealand highlights the benefits that accrue when the public and private sectors collaborate in efforts to eradicate disease.

With this in mind, Minister Creed received Government approval in May to establish a TB Stakeholder Forum with an independent chairperson. Its mandate is to develop evidence-informed policies that can eradicate TB by 2030 while respecting the principles that were outlined in the National Farmed Animal Health Strategy:

1. Working in Partnership;
2. Acknowledging Roles and Responsibilities;
3. Reflecting Costs and Benefits; and
4. Prevention is Better than Cure.

In order to inform the Forum's deliberations, the Department published three consultation papers which addressed these principles on Governance, Policy Options and Costs and Benefits.

The first meeting of the Forum took place in September and monthly meetings have taken place since then. To date, discussions have focussed on Governance and Policy Options. Costs and Benefits are scheduled to be discussed at the next Forum meeting in January. It is envisaged that the Forum will conclude its deliberations in the first half of next year.

The Department is convinced that eradication by 2030 is achievable and we will continue to engage with all stakeholders in realising this ambition.

To summarise where we are now and what we see as the important next steps:

Bovine TB levels over the past three years are lower than they have ever been, with fewer farmers than ever affected by the financial burden and emotional stress of having their herd locked up with disease. *Figure 3* highlights that many areas of the country already have very low levels of TB.

However while the current programme has been very effective in driving levels down, the science tells us that the current programme will not be enough to eradicate TB in the short or medium term.

To protect cattle from the disease and farmers and farm families from the awful burden of a breakdown, we need to continue to do what we are doing but also to do more as well.

DAFM has funded very substantial research into TB in Ireland since the 1990s and continues to do so now. That research provides us with the evidence base which underpins our policies, and also enables us to identify areas where our policies do not sufficiently address the disease risks.

We now know what needs to be done, in broad terms, to lower the levels of bovine TB further and to achieve eradication. We need to further reduce cattle to cattle transmission of the disease; we need to maintain effective controls on badger to cattle transmission of disease; we need to do more to eliminate infection from chronically affected herds; and we need to do more to protect the almost 97% of herds which do not have TB.

It is clear that DAFM cannot achieve this alone; international experience has shown that stakeholder involvement is crucial if we are to further reduce TB levels. It is not always a simple matter to achieve agreement and buy-in from various stakeholder groups on such matters, as TB eradication will involve difficult choices. Nevertheless, continuing with our current course, while sufficient to keep TB at current levels, will not be enough to reduce disease levels further.

As part of our efforts to engage with stakeholders, we have spoken at seven public meetings in the past couple of months, attended by approximately 1,000 farmers, most of whom were seriously affected by TB. We have also been invited to speak to various farming organisations at national and local level and at knowledge transfer events, all of which we are eager to do. We will shortly be launching an improved communications campaign involving leaflets, videos on youtube, FAQs on the website, etc, to address some of the common concerns farmers have about the TB eradication scheme, the TB tests, and how farmers can actually reduce the risk of TB to their cattle through their own choices.

It is important to communicate to farmers that there are things which can increase the risk of TB and things which can decrease the risk of TB, and their actions can affect their risk. For instance, herds which have had a TB breakdown are at increased risk of a further breakdown for up to 10 years (see

figure 2) but there are things farmers in that situation can do to reduce that risk, and we want to support farmers in making choices which protect their cattle and thereby protect themselves and their families from the stress and burden of TB.

Working together with stakeholders we can eradicate TB by 2030- but to do so will require some decisions that may be difficult for some in the short term, but which will yield very significant long term benefits for all.

Thank you for your attention and we will be happy to try to answer any questions from the committee.

**Fig 1: The number of reactors per year has decreased very significantly – but is now stabilising**

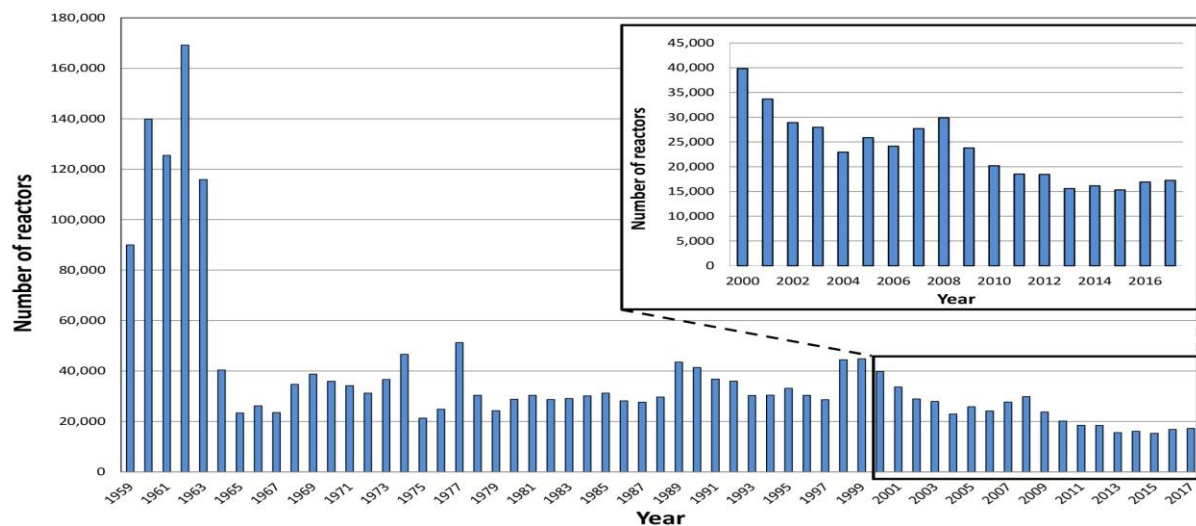


Figure 2: How long until the future TB risk of a high-risk herd (2 reactors or lesions at slaughter) is the same as a herd with no TB history?

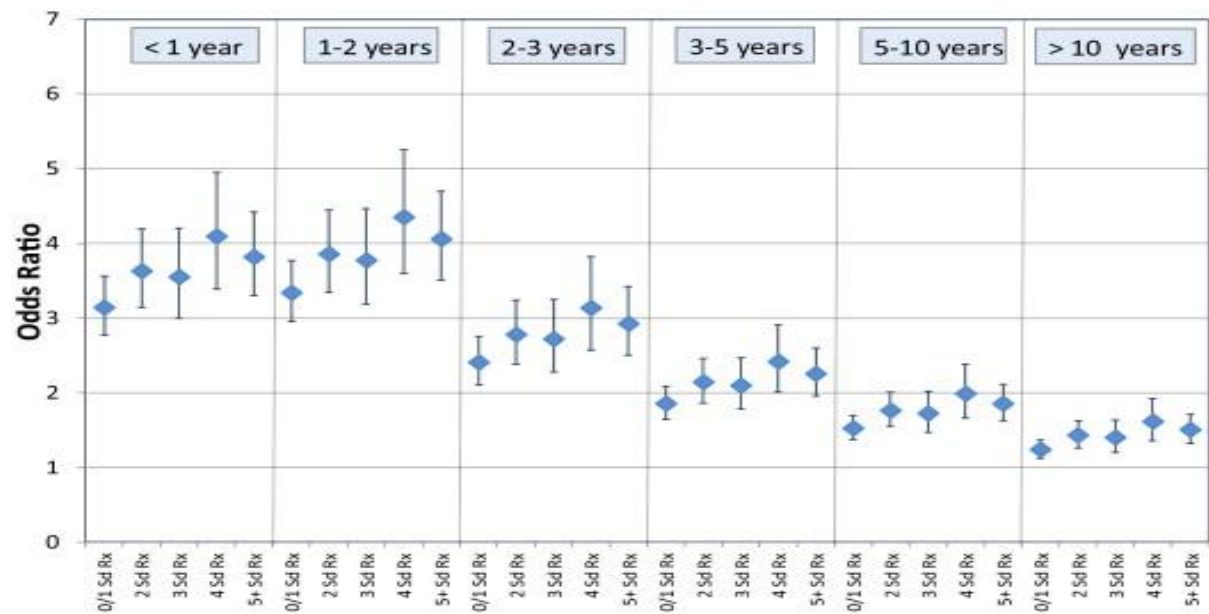


Fig 3: Many areas already have significantly reduced levels of TB

