Northern Ireland Assembly

Committee for Agriculture and Rural Development

OFFICIAL REPORT (Hansard)

Bovine TB Review: DARD Briefing

11 September 2012

NORTHERN IRELAND ASSEMBLY

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Members present for all or part of the proceedings:
Mr Paul Frew (Chairperson)
Mr Joe Byrne (Deputy Chairperson)
Mr Thomas Buchanan
Mr Trevor Clarke
Mrs Jo-Anne Dobson
Mr Chris Hazzard
Mr William Irwin
Mr Declan McAleer
Mr Oliver McMullan
Mr Robin Swann

Witnesses:

Mr Colin Hart	Department of Agriculture and Rural Development
Mr Ian McKee	Department of Agriculture and Rural Development
Mrs Colette McMaster	Department of Agriculture and Rural Development

The Chairperson: I welcome Colette McMaster, assistant secretary in the Department of Agriculture and Rural Development (DARD); Colin Hart, the deputy chief veterinary officer; and Ian McKee, principal officer. This is our first day back after recess. Colin, you have had two goes at us, or maybe we have had two goes at you; I am not too sure. Please make a brief presentation, after which members will have an opportunity to ask questions.

Mrs Colette McMaster (Department of Agriculture and Rural Development): Thank you for the opportunity to give an updated presentation today and to answer any questions that you may have.

You will recall that we attended an evidence session on 1 May 2012 on the Committee's decision to undertake a thematic review of bovine TB in Northern Ireland. Since then, we have provided the Committee with further written submissions in response to specific questions that have arisen during the review. Officials have also assisted Assembly researchers Mark Allen and Robert Barry in their investigations on your behalf.

On 3 July, Minister O'Neill advised the Committee about her plans for action on TB in wildlife, which aim to provide evidence to underpin further interventions in cattle and wildlife, and help to guide the TB eradication strategy in future. The Minister also referred to the work that is being taken forward by the Veterinary Service, including discussions with the veterinary associations on developing partnership working on TB and plans for improving communications on TB in local areas with affected farmers.

I will provide an update on the developments in TB policy, after which Colin Hart will provide an update on the TB programme delivery and the initiatives that are under way to improve local communications about TB.

As the Committee will know from the evidence that we provided, we have a robust TB eradication programme in place that is based on testing to detect infected cattle, removing infected animals and reducing the risks of disease spread through movement controls and other biosecurity measures.

The programme is approved by the EU Commission and is subject to external scrutiny by the Northern Ireland Audit Office, the Public Accounts Committee, the Food and Veterinary Office of the EC and the EU Commission TB task force experts. The programme continues to be a priority to ensure continued access to the export trade for our livestock products industry.

The range of evidence provided to the Committee has demonstrated that TB is a complex and multifactorial disease that is difficult to eradicate, with no simple, cost-effective solution or quick fix. TB is a dynamic disease and it is disappointing that herd incidents have risen over the past 12 months to reach 6·99% at 30 June 2012. Colin will say more about the veterinary investigations that are ongoing to understand and identify the reasons for that rise.

This recent rise underlines the fact that much is still not known about how TB spreads, how it can be diagnosed more accurately and what can be done to prevent its spread between cattle and between wildlife and cattle. We know that, to eradicate TB, we need to deal effectively with all the factors.

We will continue to make best use of the tools available from the TB programme. We continue to invest in TB and wildlife research and studies to build the evidence to improve how we deal with all the disease risk factors and reduce TB further. We will also work closely with stakeholders to help to ensure that all farmers are aware of the steps that they can take to maintain good biosecurity to protect their herds.

First, I will outline the recent developments in TB and wildlife research and studies. You will be aware from the Minister's 3 July presentation that officials have been asked to design specific wildlife intervention research in Northern Ireland. That would involve testing live badgers, vaccinating and releasing the test-negative badgers and removing the test-positive ones. As the Minister indicated, the first step in developing that approach is to commission initial modelling work using local information. That modelling is necessary to help to inform the cost and subsequent design of the study and to ensure that its design is scientifically robust.

Over the summer, preparatory scoping work got under way to gather the relevant information from our animal and public health information system (APHIS) data set, our farm business data sets and data on badger population density and social group size. The data has been sent to the Food and Environment Research Agency (FERA) and will be used to build the Northern Ireland model. The modelling work will be undertaken over the coming weeks, and we expect it to be completed in the next couple of months.

Informed by the results of the modelling work, the next step will be the designing of a study proposal. That will require detailed consideration to best meet the practical challenges. It should be remembered that Northern Ireland is the first area to try this test, vaccinate or remove (TVR) approach in field conditions, so we have much to consider in seeking to get it right.

Although no decisions have been made on the type of test to be used during the TVR wildlife intervention research, we will be considering the use of a rapid TB blood test. The test identifies with great accuracy the most highly infected and infectious badgers and then removes an ongoing source of infection.

There is experimental evidence to show that vaccinating test-negative badgers that may be in the early stages of the disease will help to arrest the progression of disease in those animals. Repeat applications of test, vaccinate or remove should successfully reduce the burden of infection in the badger population within an area.

We are very encouraged by the wide spectrum of stakeholder support and engagement for this test, vaccinate or remove research study. Farmer representative organisations, environmental representative organisations and private veterinary organisations are participating fully through the newly constituted TB stakeholder working group on the development of test, vaccinate or remove. All

recognise that the TVR wildlife intervention research represents a balanced approach, which will focus on the removal of diseased badgers and protecting uninfected badgers.

The Committee is aware of the other TB and wildlife research and studies that are under way to establish local evidence. Those are a TB biosecurity study; an assessment of farmers' understanding of and attitudes to applying biosecurity measures when dealing with diseases; an evaluation of the use DARD makes of the gamma-interferon blood test to detect TB in cattle; and a badger/cattle proximity study, which aims to assess the interactions between cattle and badgers in farm buildings and on pasture in a high TB incidence area.

More recently, we commissioned the Agri-Food and Biosciences Institute (AFBI) to develop proposals for further studies, including work to investigate the reasons why the greater number of reactor cattle come from chronic or repeat breakdown herds, and what can be done to address that; and a literature review to establish the TB transmission risk from spreading slurry. We also wish to establish how strain typing information can best be deployed to give maximum practical benefit to the TB programme.

We continue to maintain close contact with research and studies that are being conducted in Britain and the South of Ireland, including the development of an oral bait badger vaccine that can be delivered in a cost-effective way. Meanwhile, a couple of initiatives are planned for this winter aimed at raising farmers' awareness of the steps they can take to reduce the risk of infection to their stock.

In conjunction with the new industry-led organisation Animal Health and Welfare NI, DARD is planning a programme of sessions through the rural development programme to help to raise awareness of bovine viral diarrhoea (BVD) and other production diseases. The aim is to help to make farmers aware of the steps that they can take to tackle such diseases and the economic and welfare advantages of doing so. The programme will also highlight the wider benefits that good biosecurity practice will bring to help to protect against other serious animal diseases, including brucellosis and TB.

Colin will say more about the Veterinary Service initiative, which is aimed at improving local communications about TB with all those affected.

Finally, we listened carefully to the evidence provided to the Committee and will be interested to receive the Committee's considered report. To push further towards eradication, a future TB programme may need to involve a combination of more testing, tighter movement controls, new or improved measures to reduce the risk of disease spread from badgers, as well as between cattle, and changes to current farming practices. However, additional actions must carry reasonable prospects of success. Whatever approach is developed will have to be practical, cost-effective and acceptable in our own particular circumstances. In that regard, we will be interested to receive the detailed findings from your TB thematic review.

That completes my section of the presentation on TB policy. I will hand over to Colin Hart, who will give a brief outline on programme delivery. After that, we will be happy to take questions.

Mr Colin Hart (Department of Agriculture and Rural Development): Good afternoon. As deputy chief veterinary officer, one of my main responsibilities is the delivery of the Department's TB eradication programme. As Colette reminded us, TB is a dynamic and challenging disease. Its multifactorial nature means that changes in disease patterns are hard to fathom. That is very much the position at present.

After seeing a gradual reduction in disease levels over a number of years, it has been disappointing to see that TB herd incidence has risen sharply over the past year, reaching 6·99% on 30 June 2012. The rise remains unexplained. Veterinary Service has continued to rigorously implement the existing TB programme.

We have held in-depth discussions with our veterinary epidemiology experts, AFBI scientists and our front line divisional veterinary office managers. We are seeing a Northern Ireland-specific increase. Nine of our 10 divisional veterinary office areas have shown a rise this year in annual TB herd incidence compared with the previous 13 to 24 months. The rise has been particularly striking in the Omagh area, although most other areas have seen substantial rises. We will continue to consider possible causative factors. It may be that no single issue is causing or driving the disease. TB, as many of the presentations to the Committee explained, is a notoriously complex and multifactorial disease.

I also have responsibility for the partnership that we continue to build with the private veterinary colleagues who deliver TB testing on DARD's behalf.

Also, as indicated by the Minister in her 3 July presentation, I am leading discussions with stakeholders on how we might improve communications between the Veterinary Service and farmers to the benefit of all concerned. As the Minister indicated, we appreciate the offers made by the veterinary associations in assisting DARD where possible in communicating our messages to farmers. That will be very useful, as farmers may be more receptive to accepting good practice advice from their private vet, with whom they have developed a special working relationship over many years.

We are also working in partnership with the veterinary associations in seeking to enhance best practice testing and reinvigorate the drive towards TB eradication. As a result, we have established a TB testing liaison group with the veterinary associations, which underpins our partnership arrangements with some 300 private vets across Northern Ireland in approximately 80 veterinary practices.

I am grateful for the full support of the veterinary associations as we work hard to improve and maintain standards. Our enhanced programme of unannounced audits is aimed at ensuring that testing is carried out to the required standard, whether it is by private veterinary practices (PVPs) or DARD staff.

As I advised previously, over 120 vets attended a TB testing seminar earlier this year, which was organised by the Association of Veterinary Surgeons Practising in Northern Ireland (AVSPNI) in partnership with DARD. I look forward to seeing that engagement develop over the coming years. TB eradication will be the focus of DARD's input to the annual conference of the private veterinary associations in October. The central veterinary theme on our stand will be a partnership approach to TB eradication. I have also been encouraged by the receptiveness of farming representative organisations to developing greater engagement between Veterinary Service and farmers. We are, therefore, developing, in partnership, plans to improve communications on TB in local areas with affected farmers and, indeed, with all who are concerned about the disease and who wish to know how they might play a further role in disease eradication. We are, therefore, working up proposals to host open discussions on TB for interested farmers in local areas. We will be encouraging them to participate to learn more about the disease risk in their local area, what DARD is doing and what they could do to enhance disease protection. Naturally, we will also be there to listen to their views and concerns and to work with them to address the issues that they raise.

We are also developing renewed and simplified TB biosecurity advice for farmers in discussion with our stakeholders. We propose to make this advice widely available, starting with the winter fair at Balmoral this year. There is, of course, a considerable overlap in preventative measures for all infectious animal diseases. As the industry starts to take forward its initiative to eradicate BVD, we will be taking the opportunity to remind farmers that sensible steps to prevent production diseases will also go a long way to keeping TB at bay. I trust that you will appreciate that DARD, therefore, has been listening to comments made generally and at the Committee for Agriculture and Rural Development in particular and that it is responsive to the comments made.

Mrs McMaster: As I said at the beginning of the session, we welcome the Committee's review of this important matter. We will be very interested in the Committee's views and conclusions at the end of the process, and we are happy to answer any questions.

The Chairperson: Thank you very much, Colette and Colin, for your presentation. Colin talked about listening to the Committee. I have no doubt that the Committee's work since we started the review of bovine TB has helped to focus the mind of the Department and the actions that the Department has taken. I say that in the sense of partnership, because we feel that we need to tackle this disease more proactively, and the Committee will be there to assist in any way that we can to help the Department.

I have a question on wildlife intervention research and the badger control programme, on which the Minister made an announcement at the Committee before recess. The initial thoughts and responses were that it was a positive thing. It was something that no one else was doing. It was proactive and would, hopefully, bring everyone on board from the agriculture businesses and the wildlife sector to support it. However, since then, we have had nothing of substance on the detail around it. My questioning is around that. Since we started to conduct the review, we have been told by everyone that there is no reliable diagnostic field test for bovine TB in live badgers and that it is not practical for badgers that are infected with bovine TB to be accurately identified in the field. You referred to the

Brock Stat-Pak test to do that. I believe that the accuracy of that test was 49%. It might be all well and good in theory that we trap badgers, cull the diseased ones and vaccinate the uninfected ones. However, if we miss 50% of them, we will not be any further forward. That will produce certain evidence to suggest that we have dealt with the badger but still have the disease, so where do go we from here? I worry that that is the conclusion that would be drawn out of that. If that test is not even 50% reliable and accurate, how do we ever proceed in that manner? Is there any exploratory work on trying to get that test up to a higher standard? That is critical. If we do not close the gate on any aspect of this, we will ultimately fail, because the disease will still be present and will still be able to be streamed that way. That is my first question about the accuracy of the Brock Stat-Pak test and how it will affect the research and the whole badger control programme.

Mrs McMaster: We have not actually taken decisions as yet, but we are considering the Brock Stat-Pak test as it is the only animal-side test that is currently available. It gives rapid results and it could be completed while the captured badger is anaesthetised. There is that advantage to it. We know that there are obviously other issues with the test. You mentioned the 49% accuracy, which relates to the sensitivity of the test. The test has better specificity than sensitivity, which means that any badgers that it detects as being positive are highly likely to be infected. Indeed, AFBI's assessment of that test is that it is most likely to detect the most infectious badgers, where the disease is in the later stages, which are likely to present the biggest risk of spread to others.

The Chairperson: It will still mean that there are reservoirs out there that will be missed, which will mean that there is no way of detecting that at that point. Am I not right in saying that what it means is that the only thing that you can really rely on is the fact that you could be releasing 50% of infected badgers?

Mrs McMaster: Any captured badgers that are released because they test negative will be vaccinated first. Some of those being released will obviously be truly negative badgers and they will be vaccinated, so that element of protection will be built up within the badger population. Our understanding of experimental evidence is that vaccination in itself actually slows the progress of the disease in an infected badger, so there is an advantage to that as well. Over time, the vaccination aspect will actually build a level of protection within the badger population. That is the idea. The purpose of the research is to test the effectiveness of it. What we want to be able to do at the end of it is to measure the effect that it has had on the level of TB in badgers and cattle. That is the end purpose and the ultimate outcome of it.

We also know that the Department for Environment, Food and Rural Affairs (DEFRA) has further research ongoing into potential alternative diagnostic tests for badgers. Obviously, we want to keep in touch with that ongoing work and learn from any new developments or lessons that come from it. Ultimately, if it is an approach that proves to be useful or could be considered in the future as a potential approach to use, and if there are other tests available that are more accurate, they would be considered.

The Chairperson: I understand that it is an ongoing process. Has the Department decided yet what geographical scale or area will be chosen for that research?

Mrs McMaster: We have not as yet. The first stage that needs to happen, and which we are engaged in, is the modelling work. The results of that modelling will help us to determine the size of the area that will be used for the study as well as the location of the area, and so on. The modelling work data has been gathered and sent to FERA. We expect to get results from that over the next few months. That is the point at which a decision on the location will be made and the design work for a proposed study can take place.

The Chairperson: Is the Department factoring in the associated risks around a control programme, such as legal action, protests and even perturbation of the badger? Is that all being considered? What discussions have you had with the Department of the Environment (DOE) with regard to granting licences for this programme to take place?

Mrs McMaster: I will address the legal issue first. We will be carrying out research.

Mr Ian McKee (Department of Agriculture and Rural Development): The Agriculture (Northern Ireland) Order 2004 empowers us to task AFBI to carry out research. That is the primary power. It will

be for the contractor to seek the subsequent licences from DOE or the Northern Ireland Environment Agency (NIEA).

You asked about the relationship between ourselves and NIEA. We have a close relationship, but we have to be careful that its challenge position is not compromised, so we have open lines of communication with it. A NIEA representative sits on the TB stakeholder working group. It is inclusive of veterinary organisations, farming organisations and all the terrestrial environmental organisations. When it comes to the point at which licences are required, the application will go to the Northern Ireland Environment Agency. In turn, it must consult with the Council for Nature Conservation and the Countryside, which is DOE's statutory advisory body. Then it will come back to approvals. The Minister of the Environment has a challenge role there, but we would be applying for that under the scientific procedure side. This is not a Province-wide intervention. Since it is based on science and is a scientific study, that should go forward through the proper channels.

The Chairperson: Will they grant licences?

Mr McKee: You are asking me to speak for the DOE and the NIEA, and I cannot do that, nor can they comment until they have the scientific proposal and the details, safeguards and checks and balances that will be designed. You are asking a question that I cannot answer. That is their responsibility.

The Chairperson: In your answer, you are ruling out a Province-wide programme.

Mr McKee: We are proposing a scientific study to see whether this approach has merit, whether it works and what the effect will be in relation to badgers and cattle. That is where we are. Until those answers are to hand, we cannot speculate on what will happen thereafter.

The Chairperson: We have yet to receive any feedback or outcomes on the biosecurity study that has been done. Nothing has been published. Why is that?

Mrs McMaster: AFBI is carrying out the GB biosecurity study, and the expectation is that the study will be completed by December 2012. AFBI has had a staff vacancy in a crucial area connected with that study, but that has been resolved, so the work is on track for completion by the end of December. That is why there are no results from the biosecurity study yet.

The Chairperson: I will leave it there for the meantime and invite members to ask questions.

Mr Swann: Thank you for your presentation. The Minister and officials were in front of us on 3 July with the first airing of their wildlife intervention programme. You will recall, Chair, that that was the first time that any of us had heard about it. I raised concerns with regard to the Brock Stat-Pak test and being able to test live badgers in the field and the number of queries that were around that. If I understand what you are saying, this is scientific research, and you are going to set up a series of computer-based data and modelling, and all the rest of it. That is where we are going with this to see whether it is going to be practicable?

Mrs McMaster: That is a scoping phase that is done at the beginning. We need to do that to help us to design the study. It will also help to scope out the costs and make those decisions that we talked about just now around where it would be located, the scale of the study, and so on. Therefore, it is a scoping phase. The Minister is talking about a field study, which is to apply this approach in the field, but the scoping exercise needs to be completed first.

Mr Swann: What is the timeline?

Mrs McMaster: We are working with FERA on that. We have sent data from Northern Ireland to help to build the Northern Ireland model, and we expect the modelling bit to be completed in the next couple of months. That will enable us to do the detailed design work.

Mr Swann: How long will the design work take?

Mrs McMaster: It is really counting back, but we are aiming to work within this time frame. However, the Minister has said that she wants to see the fieldwork starting as early as possible next year.

Therefore, that is what we are working towards. We cannot say at this point what date that will happen, but we are looking to have something in place by then.

Mr Swann: Chair, if you do not mind, I am going to be completely cynical. I think that the Department is on a wild goose chase. When the departmental officials came to us on 3 July, they said that this was going to be something that has never been tried before. Yet, one of the frequently asked questions on the Welsh study into intensive badger vaccination, which was edited in May 2012, was:

> *"If you are trapping badgers, why not test them for bovine TB?"*

That is coming from the Welsh Government.

> *"There is currently no reliable diagnostic test for bovine TB in live badgers, and it is not practical for badgers infected with bovine TB to be accurately identified in the field."*

However, we have a Minister of a Department who is going to commit resource and time into scoping exercises and field trials, which the Welsh Government abandoned in May because the science is not there.

What concerns me is that the Committee took on a serious piece of work in relation to TB, and the Department and Minister came to us in July with a knee-jerk reaction to try to fob us off to get us off their backs so that we would move swiftly on to another piece of research and another project. The end result is that our agriculture industry and our farmers are going to pay and are going to suffer for this exercise.

I think that the wildlife intervention programme is nothing but window dressing to get this Committee and this study out of the road. I am really concerned about this because I know that there is a lot of good work being done, and there are a lot of good people in the Department who are serious about tackling TB. However, we are going down a line here that is going to take away valuable resource and valuable individuals from something serious. We could look at a better scoping exercise. I think that the Department is flawed in having the wildlife intervention programme. You were talking about sensitivity and specificity. I studied statistics, and I know how percentages can be twisted, but, at 49·2%, I could stand beside a badger in a cage, toss a coin and give you a better specificity.

Mrs McMaster: It is not the same as tossing a coin.

Mr Swann: With 49·2% accuracy, it is. The specificity of whether you can test those 49·2% positive for TB is the crux of the Brock Stat-Pak. You said in your opening statement that the more infectious they are, the better it is. That is because the more TB there is in a badger, the better the test becomes. Therefore, it is only really going to be of any use with infected badgers.

We are still looking at animal welfare. If you want to go down the line of welfare of badgers in regard to all this, it comes down to the trapping and the time that they are going to spend in the cage.

I would have thought that the Northern Ireland Assembly should at least have the maturity to learn from what the other devolved regions have done. The Committee has spent months looking at research and practices from England and Wales and the four-county trial in the Republic of Ireland. In May 2012, the Welsh said that there was no reliable test. We are wasting time and energy. Our Department is focusing on a modelling and scoping exercise, the crux of which is the ability to test live badgers in-field. That science is not there yet. The model that we will come up with may be of use in future when a more reliable test comes into place, but that science is not there now.

My concern is that if we go ahead with a scoping exercise but put out something that is only 49% accurate, the results of that modelling and scoping exercise are going to come back flawed because the ability to test for TB in badgers is flawed in the first place.

This is not so much a question as a statement of what I think the Department is doing wrong at the moment. Those funds could be better spent and energies could be better placed in other directions. Please do not take this as a criticism of the individuals who are involved in the fieldwork to tackle TB, because I appreciate the valuable work that the Department's staff are doing.

The Chairperson: I am going to turn your statement into a question and ask the officials to respond.

Mrs McMaster: We cannot really comment on the decision that was made in Wales about their way forward. The distinction is that the Welsh were looking for an immediate intervention approach. You are right; the evidence was not there to use this sort of approach in their situation, which is why they said that they would not go ahead with it as an intervention approach.

We propose to use that piece of research. This approach has not been tested in the field, and that is what we propose to do here in order to test its effectiveness. We are aware of the other approaches that are being taken in England and Wales and our Minister has looked at those.

We can learn from those approaches as they are deployed over the coming period, but this is a different approach that has not been tested. We believe that it has potential. Our stakeholders across the board support this approach because they see it potentially as a balanced approach. They are also very keen to see whether it would be effective to use in dealing with TB. It has potential here, and we want to explore it to see how it would work here.

We will still be able to learn lessons from the approach that the Welsh have already embarked on, which uses vaccination and the proposed DEFRA approach, which would use culling. All of that is still tied up in potential legal challenges. There are downsides to other types of approach, but this has not been done, and we consider it worth doing.

As for the worth of the results of the modelling and what happens after that, all of it is subject to business case approval by the Department of Finance and Personnel (DFP). Ultimately, it will be subject to a case being made.

The Chairperson: How much will it cost?

Mrs McMaster: We do not know the cost as yet. That is one of the things that will be better informed by the modelling. Modelling is the scoping phase, and there are a number of decisions and more information that will be available to us as a result of that. It will help scope out what will be involved and, therefore, the potential cost.

The Chairperson: How much have we allocated for the scoping phase?

Mrs McMaster: The scoping phase will cost —

Mr McKee: It will cost between £30,000 and £50,000. The design cost will come from existing DARD epidemiology staff resources. We will work that cost up. There will also be costs for the necessary sett survey when we reach the point when we have an area or areas in view, whatever size they will be. That has to be done as well. That can be taken forward in the relatively near future, once we have the design.

I want to come back to the point about the toss of the coin, if you do not mind, because it is important. I appreciate that it deals with a subset of animals and is random, but the RTA, or road traffic accident, study in badgers indicates that post-mortem examinations show 16% to 20% of them to be infected. So, we should not go away with the idea that every badger in the country has TB and is spreading TB. Badgers are a contributory factor — no one is in any doubt about that — but we have to be proportionate. If we went in with any other intervention, we would take out a lot of animals that are free of disease and, therefore, incur legal action. Of the animals that will be taken in this study, the most heavily infected will be detected by the test. DEFRA and the Animal Health and Veterinary Laboratories Agency are working on other tests that may come along within the time frame and give additional assistance.

The animals that are test-negative may be truly negative, in which case they will be vaccinated and protected. If they are in the early stages, there may be some protective element. However, those animals are likely to be caught again the following year and the year following that. Once they test positive, they will be removed. The average lifetime of a badger is three to four years, so the population in that study area will have turned over in that period. Animals that are diseased will be taken out. Animals that are test-negative will be vaccinated.

Dependent on the FERA modelling and the design, it is hoped that there will be an effect on badgers and cattle over that period. That is what we are trying to do, and all stakeholders right across the range are supportive. This is a way to move forward, build consensus and take people with us. I think

that it is to be commended and supported. You have said your piece, and that is my statement in response.

The Chairperson: We appreciate that because we need to hear it.

Mr McMullan: You will be glad to hear that I do not have a lot to say. We have sat here for long enough at every meeting, with the poor Minister being blamed whether we do something or do not do something. Here we are embarking on something that this gentleman has just said is supported by everybody right across the board. We have no evidence that the Welsh are right in what they say. We should go down the road and do what we are doing at the minute and try it. We have been accused before of doing nothing. We have been told before that this is not something that will be sorted out this year or next year. The programme will take years, so we have to start somewhere. We should stop bashing, tossing coins and doing all sorts of tricks and get on with the programme of trying to eradicate this disease.

I am happy enough that the field-testing can go. One of the things that the Welsh said is that it is not possible to do it within 15 or 30 minutes. Are you are happy enough with what they say in their report about it having to be done in twilight and within a period of up to half an hour, the vaccine having to be taken out of cold storage and whatnot?

Mrs McMaster: The practical issues would be an important part of the design phase. All those issues will be looked at, and we will have to get that right.

Mr McMullan: Once you get it right, you will be happy enough with that. I think that we should go ahead with this and see how this programme can work. Given what has been spent on the programme, it is not that expensive. We have to start somewhere. I am glad to see something like this getting off the ground, because we will be defeating ourselves if we do not look at the positives of it.

Mr Byrne: I thank these people for the submission. We were in the middle of carrying out a fairly intensive report. I am a bit disturbed and worried that this is now a half-baked approach. So many open questions have been raised about testing the suspects. This is really a modelling exercise thus far, which begs the question: are we getting into a scientific project? Meantime, however, the incidence of TB is growing. We have heard no explanation yet about why the incidence has grown so much. We have heard about the RTAs. I would say that most of us have been witness to RTAs involving badgers on the side of the road. At least there is some sort of subset that can provide some information.

I have to be concerned, Chairman, as others are, as to whether it was wise to rush into what has happened and been announced. The urgency was created by the Committee. I know, from the letters I got from a few vets, how angry they were about some of the comments I made. The bunny-hugging had to stop.

In the meantime, the EU is asking questions about the cost of the scheme that we have had for a long time. There are so many open questions. The key question is what is the objective of the Department? Is it to look after the interests of the farmer or the interests of the cattle? Or, is it about seeking a balanced approach to also look after the interests of the badger?

Mrs McMaster: The commitment of the Department is to eradicate TB in cattle. That is not straightforward. We need to deal with all the disease factors. That will require us to continue with our TB control programme, which, as Colin set out, deals with and continues the programme based on detecting disease in cattle, removing disease from cattle, and so on. We need to continue doing that, and we may need additional measures to add to and improve on that. We are not aware, at this stage, what the precise reasons are for the rise in incidence, but it is something that we are continuing to look at. That may lead to further measures having to be considered.

Another element is trying to establish the evidence to fill the gaps that we know are there, to help us to better understand what more we can do to help to eradicate TB. That is the role of the TB and wildlife research and studies. The TVR approach, which we talked about, is a significant part of that. Other research and studies are ongoing —

Mr Byrne: Tell me, Colette, at this stage, is the Department aware of what the actual badger population is and the pattern of that population over the past 10 years?

Mrs McMaster: A badger population survey commissioned by DARD was carried out a few years ago.

Mr Byrne: How many years ago?

Mrs McMaster: I think that the number of badgers is about 35,000.

Mr Byrne: When was the previous survey done?

Mr McKee: The previous survey was done about 10 years before that, and the numbers were slightly higher. There is a fluctuation in the population, so it was within tolerance.

Mr Byrne: Is there or is there not a correlation between badger population and the incidence of bovine TB?

Mr McKee: The badger population has not exploded. It has not increased exponentially. The population is about 33,000 to 35,000 individuals.

Mr Irwin: My question relates to the different strains of TB. My experience is that of a farmer. We have had farms where one or two animals out of 500 go down and other farms where 300 or 400 animals go down. Obviously, different strains are more aggressive than others. Has the Department done trials on identifying those strains? I went to a departmental official once, after a very big outbreak in County Armagh, and the official told me that that strain came from Newtownards and was very aggressive. Obviously, the Department knows that there are different strains and highly aggressive strains. What has the Department done, or what can it do, in relation to that?

Mrs McMaster: AFBI has done quite a bit of work on strain typing over a number of years. The Veterinary Service has a comprehensive database of herd- and animal-level information. It has access also to strain typing information from AFBI. AFBI also has information on the strain type of badgers, which was captured in the RTA study. So, a pool of information is available, and Colin will perhaps tell us how that can be used in the programme.

We have asked AFBI to produce a proposal for an evaluation of strain typing data to see how it can be best used in the programme. We want to explore how we can use that information to best advantage. We are waiting for a proposal from AFBI for that work. I will bring in Colin, who will discuss the information that is available.

Mr Hart: Thanks, Colette. Perhaps you are asking, William, whether we can link particular strains of TB to those aggressive breakdowns that we see throughout the country. I asked AFBI that, and my understanding is that, at present, there is no linkage with the strain. It is counter-intuitive; you would suspect that some of those really bad breakdowns were caused by certain strains. In fact, there is no evidence at present to show that. That is my understanding of the AFBI research, but we can verify that for you.

If you will allow me to go on for a second, I will discuss the issue that Colette mentioned. We use strain typing routinely. Our veterinary officers (VO) carry out investigations of TB breakdowns. I have some 60 staff doing that throughout the country, but I am not sure that that is always appreciated. At the moment, there are some 60 people out there — the equivalent of 50 full-time staff — spending an awful lot of time on TB. One thing that they now routinely ask for is the result of the variable-number tandem-repeat (VNTR) strain typing from AFBI. At times, that shows us some interesting pictures. For example, it shows us where a new strain, as you mentioned, has come into an area.

By and large, strains are very much geographically located. They tend to be found in wildlife, such as badgers, and cattle in the same area. So, when an animal moves some distance as the result of a sale and brings a strain of TB into a new area, it is quite striking when that animal goes down and tests show that the strain is not local. It allows you to say with a fair degree of confidence that that particular outbreak was caused by a bought-in animal. In fact, because some big beef-finishing units buy animals from all over the place, we tend to find that they could have multiple strains on their farms. Therefore, the work that AFBI has done on strain typing is really exciting. As I said to the Committee previously, it is really useful in getting that wee bit more information.

Unfortunately, if the TB outbreak is caused by the same strain that is in local badgers and all the local farms, it can be quite hard for VOs. Often, they will record that it is "local spread". That just means that the strain is in local badgers or local farms. In other words, they do not know.

William's immediate question is whether the strains are linked to the aggressiveness of the disease. My understanding of a conversation that I had recently with Sam Strain, the expert in AFBI, is that that is not the case. Like you, I questioned that. However, it seems that that is not the case.

Mr Irwin: Have you any explanation why one herd could have several hundred animals go down over a few months and in a neighbouring similar-sized herd down the road, where TB is also present, only two animals go down? Obviously, there has to be some explanation why a large number of animals would go down in a herd. I am talking about dairy herds. In the main, beef herds are in one place only for a few months before they are moved on or fattened and killed. Normally, in dairy herds, animals are there for 10 or 12 years in some instances and are, therefore, more liable to contract TB. In seems very strange that large numbers should go down with a bang in one herd and a neighbouring herd down the road that also has TB should lose only one or two animals.

Mr Hart: The answer is that that is more complex. There is, perhaps, a combination of factors. Again, AFBI has identified the possibility that the breeding of the animal could be a predisposing factor. For example, a predisposition to liver fluke in the herd can make them more susceptible, and other diseases that they have at the same time can also make them more susceptible.

There are also the animal factors to consider. You have probably heard of TB cases where the veterinary term "anergic" is used, which means that although an animal may be riddled with TB, it has reached a stage where it cannot react to the TB skin test any more. Those animals can be a serious risk to the herd. They could be spreading TB through milk, through the udder and through leaking in the calving pens, meaning that every animal that goes through the calving pen subsequently becomes infected.

We have also had breakdowns where all the age groups were affected because they were all under one roof, so there is clearly a respiratory element to the disease as well. If you have an animal that is coughing large numbers of TB bacteria under one particular roof, all age groups are affected. I have seen that myself. Bear in mind that the infectious dose for TB is minuscule; it could take only one bacterium to infect an animal, whereas in many other diseases, you need something like 100,000 organisms to start off an infection. TB is quite unique: one single organism or a small number can start up that nucleus of infection and spread it very widely. So, what combination of factors leads to a whole herd going down? We see such cases, which are horrendous, such as a herd of 300 with 200 reactors, all with lesions. I have seen them myself, and I have done post-mortems on them in the abattoir. It is quite astounding when you see it, but nobody quite knows yet why it happens, because the same strain in the next herd has infected maybe only one animal. So, as far as we know, it is not a strain effect; it is probably much more complex than that.

Mr Irwin: Following what the Chairman said about the tests, if I am right, the test that is used today probably goes back 50 years. I am not sure. It is a long, long time since I was very small, but given that technology has moved on between the days of the horse and cart and today, surely more should have been done. I am not blaming the Department for that, but it would seem to the average person that we have not moved on in 50 years in testing cattle.

Mrs McMaster: You are right. The skin test is standard, and it is the recognised EU test for screening, and it is recognised worldwide for international trade. It is the test that has been used, and it the most reliable test that is available at this time. TB is such a complex disease. Work is ongoing to look at the possibility of new tests, and so on, and we will continue to keep in touch with that. However, it is a complex disease, and it is obviously difficult to come up with a test that improves on the skin test. Supplementary tests approved by the EU, such as gamma-interferon blood tests, can be used not in place of but as a supplement to the skin test. We obviously make use of that test in our programme.

We talked about the limitations of the test. It is a screening test that we use as part of our annual test, and, from the screening point of view, it is useful at herd level, which is how we use it rather than at animal level. The test is probably less accurate or reliable at individual animal level than at herd level, but at herd level, which is where we use it to screen as part of our programme, it helps to mitigate that.

The Chairperson: I have a couple of questions on matters that we have not touched on today but that we really need to have some sort of input on for a review. Why has the Department never contemplated finishing units here in Northern Ireland?

Mrs McMaster: We have looked at that in the past; in fact, it has been raised by the Ulster Farmers' Union (UFU) in the press. Perhaps that is what you are referring to. We are in discussion with the Ulster Farmers' Union about this. It was discussed last week at our animal health and welfare stakeholder forum with the Ulster Farmers' Union and other key stakeholders. In fact, there is a further meeting tomorrow. So, it is something that we have been doing. Obviously, we are trying to clarify the need that exists, and we are aware of UFU concerns about potential difficulties this winter through a shortage of forage. So, I think that we now have an understanding of the issues and concerns. There is a meeting tomorrow, so not to pre-empt that discussion, I will say that we will have to see where it goes.

It is possibly a different sort of issue than that of the approved finishing units, which we looked at in the past. We looked at industry proposals and drew some up ourselves for industry to look at. Ian can come in on this, but it was very difficult to come up with proposals for a system that would minimise the disease risks and still work at a practical level. That was the issue.

The Chairperson: It would aid business in that they could actually get finished in some areas, which they cannot now. I know the severity of the immediate threat, and that is what the Ulster Farmers' Union is talking about, but these have existed in England. I was talking about those. If the Department has information, or even proposals that it was contemplating at one time, we would like sight of them if possible just to see where we would go and what view we would take as a Committee on that. So, the concern is not necessarily directed at the immediate threat that the industry is under, but the issue is just about helping the industry in the fight against bovine TB.

Over the past couple of months, myself and other Committee members visited farmers who have been continuously down with TB and cannot get lifted. I think that, in one case, that has been the situation since 2007. It is really hard to quantify the stress and pain that the family are going through with being down for so long. Their business is nearly wiped out. Yet all that is happening is testing, re-testing and testing again.

The Committee needs to know the Department's definition of a "chronic herd". Is it to do with time, the number of breakdowns or reactors, or the percentage of the herd that is affected? I know that there is a piece of work on researching chronic herds. Where are we with that? I think that a serious piece of work could be done on that that maybe has not been done but that really needs to be.

Mrs McMaster: It is important to do work in that area, and we have commissioned AFBI to develop a proposal to investigate the risk factors that are associated with herds that have persistent or chronic infection so that reducing disease in those herds can be helped. We are waiting for that proposal from AFBI, but we recognise the issue.

The Chairperson: Will AFBI define "chronic herd", or have you set that definition?

Mrs McMaster: The Department has its own view of what a chronic herd is from its veterinary epidemiology unit.

Mr McKee: I spoke this morning to the person who is interrogating all the APHIS data for this. Reviewing all the documentation from 1995 to the present, it seems that quite a number of herds have gone down repeatedly. You could look at the past two years and decide what was a chronic herd in that time frame, but you might miss quite a proportion. So, they are looking to see how far they need to go back to establish what is a chronic herd. That is because a herd that has repeated maybe five times over the past 15 years may be chronic, whereas one that has gone down only twice but that has really been part of a continuous cycle may be different. So, there are issues to be sorted out. If you go too wide, it then becomes just too big a problem. However, around 70% of reactors are coming from about 30% of herds. Now, if we could deal with those 20 or 30 worst herds, we would be greatly reducing the burden of infection. That is where we want to get to. So, veterinary epidemiologists are working on that at the moment, and it will then go across to AFBI for further research into what is causing it. I consider that to be an important area that it is vital that the Department takes forward.

Just when I have the opportunity, I will go back to the other issue, which is the approved quarantine or fattening units. We have looked at that in times past, but we need to be careful. I know that one

divisional veterinary officer (DVO) — I will not mention areas or anything — was approached by an absolutely reputable farmer who had a problem. They tried to work together to come up with a set or proposals that would enable him to trade with less testing while ensuring that there was no increased risk to neighbours. They could not square that initiative, which was devised between the two of them. However, word got out that it might be a possibility, and people who perhaps were not as good at gathering animals in for testing might have been interested in it So, we have to be very careful.

Although there are approved fattening units in GB, I know from visits from the Food and Veterinary Office, as well as from EU task force members, that Europe looked askance at them. Those in GB have not been told to stop the practice, but we do not want to go into something that creates an issue that, first, is ruled against by Europe in a short period, meaning that we lose our approval for our programme and that, secondly, by dealing with one issue, could create a bigger problem for neighbours because we are doing less testing in that area.

However, the main problem that is coming forward is that the terminology that was used was "approved fattening units", but when we asked the question about it, we were told that it is a welfare issue that is current, needs to be dealt with, and for which there is discretion for dealing with. We will take it forward with the Ulster Farmers' Union.

Sorry, I may have confused the two issues.

The Chairperson: No. You have not; you actually clarified them.

Mr McKee: That is OK.

The Chairperson: Do you want to ask a question, Oliver?

Mr McMullan: No, Chair. Mr McKee has cleared the issue up for me.

The Chairperson: There is one question that we have to tackle. Forgive me, members, but we have to make sure that we are as thorough as we can possibly be, because this is our last chance with the Department. This issue concerns cattle history, pedigree and the genetics of the beasts, and the relationship between buyer and seller. It can also be a sensitive issue, of course, as it affects business. Where are we in that regard? Where are we with cattle history, movements of cattle and everything else? How much does the Department feel that it has to close down on that issue and restrict it to help in the fight against bovine TB? I know that that is a very sensitive issue, but the Committee needs to assess it.

Mrs McMaster: I will start to answer that question, and others can come in on it. Obviously, we have information in APHIS, as well as historic information. An issue of data protection needs to be looked at. From DARD's point of view, the information comes from our system. This has come up in our work with the industry as it develops its BVD initiative. It is an issue that is absolutely between two herd keepers, a buyer and a seller. If they ask for information, they will be provided with it. It is up to industry to extend it beyond two buyers, if they wanted to do so. However, for government, there are legal issues on data protection to consider.

The Chairperson: Are you satisfied that there are adequate standards?

Mrs McMaster: Standards in relation to?

The Chairperson: In relation to knowledge. Are we there with best practice? Are you content with the way that people buy and sell?

Mrs McMaster: I will ask Colin to come in on that.

Mr Hart: We had that discussion with our stakeholders only this week. Best practice would be to operate a closed herd, but, as you would imagine, when we mentioned that to stakeholders, it was pointed out, quite fairly, that the majority of farmers in Northern Ireland are not in the nice position of being able to operate a closed herd.

Your question, Chairman, is very pertinent because buying in from a reputable source is next to the best practice of keeping a closed herd. What is a reputable source when it comes to TB, and how

much information can you get on that? A farm-to-farm sale is probably a good idea, especially if you know the person you are buying off, because they will probably tell you straight the way that things are. A regular supply, such as that that the pig industry has operated for years, between a breeder and a finisher would be a very reliable way to do things, particularly if you build up confidence that the breeder's cattle are generally free of TB when you get them tested. However, there are other permutations, and if you start to take this through the supply chain, you will see that it gets more complicated. I reiterate Colette's point: the industry could probably do a lot more to set its standards, and, as a vet, I would encourage that. It would be very good practice to take that a stage further.

The Chairperson: OK. Ian, do you want to come in on that?

Mr McKee: I just want to say that in recent days, the industry in England has been having a conversation — "conversation" is the word that it is using — about risk-based trading, and it will be interesting to see how that develops. The industry may be able to come up with a protocol to ensure that, as far as possible, risk is taken out of its trading arrangements, because half the country has a TB problem and the other half does not or it is not as apparent. There may be some pockets, but it wants to ensure that the diseased part does not infect the undiseased part. So, the industry is talking about risk-based trading. That could change the dynamic, and good practice from anywhere can be imported.

The Chairperson: No other members want to come in. Thank you very much for your time and attendance today. It is very much appreciated. You know how important the issue is to the Committee, and I know that it is important to you.