N I A O

Northern Ireland Audit Office

The Control of Bovine Tuberculosis in Northern Ireland

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL
NIA 92/08-09, 18 March 2009

Northern Ireland Audit Office

Report by the Comptroller and Auditor General for Northern Ireland

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The Control of Bovine Tuberculosis in Northern Ireland

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J M Dowdall CB
Comptroller and Auditor General

Northern Ireland Audit Office
18 March 2009

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Glossary

Annual Herd Test
The EU Directive sets out the level of testing to be carried out by Member States; this is dependent on the incidence of bovine tuberculosis in the cattle population. Northern Ireland is required to carry out an annual herd test on all herds; the test must be undertaken by a qualified veterinarian and is financed from public funds.

'At risk' Herd Tests
Tests on herds that are identified as being at a higher risk to bovine tuberculosis infection than normal. This includes herds neighbouring a breakdown herd, herds from which reactor animals were purchased or obtained and herds containing animals acquired from a breakdown herd.

The Blood Test
A bovine tuberculosis test which is based on a laboratory examination of a blood sample. The blood test may be used to supplement but not replace the skin test. The test may help in the earlier detection of disease or in problem herds where it has been difficult to regain their disease free status.

Bovine Tuberculosis
Bovine tuberculosis is a contagious bacterial disease of cattle, which is slowly progressive and chronic in course. It predominantly affects the respiratory system, leading to reduced productivity and fertility. The disease is transferable to humans and other animals through close contact and via unpasteurised milk. It is a notifiable disease and anyone suspecting bovine tuberculosis must notify the Department of Agriculture and Rural Development's Divisional Veterinary Office. The disease can only be confirmed following slaughter through laboratory culture of the bacterium taken from tissue samples.

Breakdown Herd
A herd in which the presence of bovine tuberculosis is suspected or established whether or not bovine tuberculosis is subsequently confirmed. The breakdown herd is placed under movement restrictions until disease free status is re-established following additional bovine tuberculosis testing.

Inconclusive
An animal which shows a reaction to the skin test but the degree of reaction is not sufficient to classify it as a positive result; the animal is treated as a bovine tuberculosis suspect.

Negative
An animal which, following a bovine tuberculosis test, shows little or no reaction to the test and is deemed clear of bovine tuberculosis.

Reactor
An animal which has given a positive reaction to the skin test. All reactors are subsequently removed from the herd and slaughtered; compensation is paid to the owner of the reactor cattle.

Restricted Herd Tests
Following a breakdown, additional bovine tuberculosis tests are carried out on the herd until its disease free status can be re-established.

The Skin Test
The EU approved test used in Northern Ireland for the detection of bovine tuberculosis known as the single comparative intradermal test.

Abbreviations

AHT	Annual Herd Test
AFBI (VSD)	Agri-Food Biosciences Institute (Veterinary Sciences Division)
APHIS	Animal and Public Health Information System
AVSPNI	Association of Veterinary Surgeons Practising in Northern Ireland
BSE	Bovine Spongiform Encephalopathy
bTB	Bovine Tuberculosis
the Blood Test	The Gamma Interferon Test
the Department	The Department of Agriculture and Rural Development (DARD)
DEFRA	The Department for Environment, Food and Rural Affairs
DFP	The Department of Finance and Personnel
DVO	Divisional Veterinary Office
EU	European Union
the EU Directive	1964 Council Directive 64/432/EEC
EU FVO	The EU Food and Veterinary Office
FMD	Foot and Mouth Disease
GB	Great Britain
NI	Northern Ireland
NIAO	Northern Ireland Audit Office
PAC	Public Accounts Committee
2002 Policy Review	Control of Bovine Tuberculosis Policy Review Final Report, July 2002
PVPs	Private Veterinary Practitioners
R&D	Research and Development
RCVS	Royal College of Veterinary Surgeons
RoI	Republic of Ireland
the Skin Test	The standard (Single Intradermal Comparative Cervical Tuberculin Test) bTB test approved by the EU and used in the UK
TVO	Temporary Veterinary Officer
UFU	Ulster Farmers' Union
UK	United Kingdom

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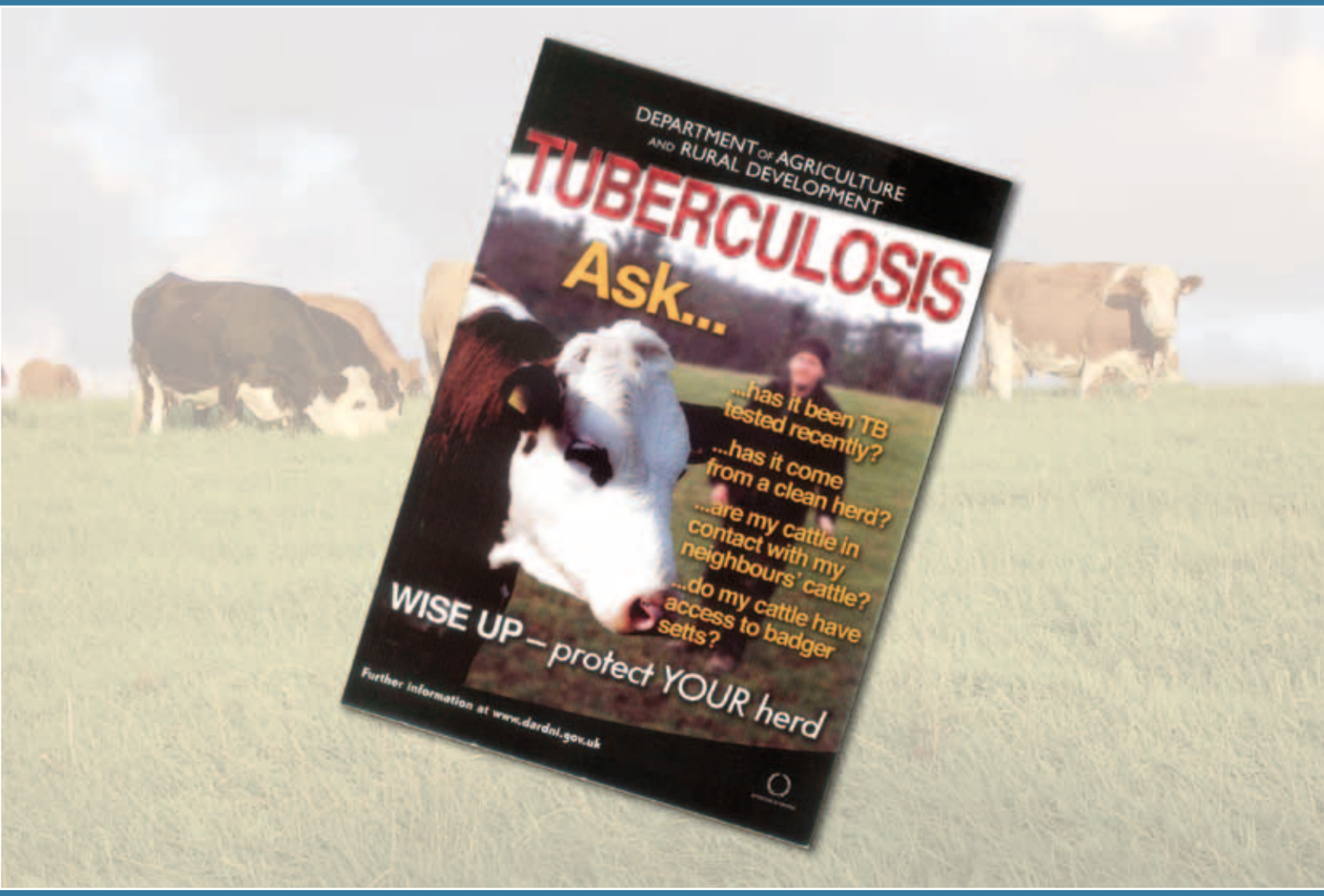

Executive Summary

Introduction

1. In 1993-94, the Public Accounts Committee (PAC) at Westminster examined and reported on the then Department of Agriculture's handling of its Bovine Tuberculosis (bTB) eradication programme. Our current report examines the progress made by the Department of Agriculture and Rural Development (the Department), following the PAC's examination.

2. Since the completion of our main fieldwork in 2006, we have had a series of extensive consultations with the Department on our findings. Over the period that those consultations took place, there were further developments in a number of the issue areas involved and, accordingly, we have updated the report where relevant and possible.

3. At the conclusion of our consultations with the Department in February 2009, there remained a number of matters in the report with which the Department said it either did not agree or considered needed clarification. While NIAO does not endorse the points raised by the Department, we have included them, for completeness, at **Appendix 10**.

4. Despite greater success in tackling bTB in recent years, incidence of the disease in Northern Ireland remains significant and the Department continues to look at ways of strengthening its eradication programme. We note, in particular, the recent announcement by the Departmental Minister (in December 2008), of a new strategic approach to deal with bTB in Northern Ireland. The Department told us that this will be:

"an agreed, joint industry/government approach on bTB. It recognises that the eradication of bTB is not a realistic prospect in the short-term. The aim of the strategy is, through industry and government partnership, to move towards the eradication of bTB in the most cost-effective way and in a realistic timeframe. It is designed as a holistic approach that addresses three key strands, which are – real partnership between government and the industry, controlling the spread of bTB between cattle, and addressing the wildlife factor."

Background

5. Northern Ireland has some 25,000 herds of cattle, with 1.7 million animals. At least one quarter of herds in Northern Ireland have had Bovine Tuberculosis (bTB) and, at December 2007, some 1,600 herds (just under 7%) were under disease restrictions.

6. From 1997, there was a significant increase in the prevalence of bTB in herds in Northern Ireland, rising from just under 5% in 1997 to a peak of some 13% in 2002. In mid-2003, the Department noted that Northern Ireland had *"the highest* [bTB] *levels in Europe and incidence that has risen dramatically in recent years and continues to rise".*

By 2007, herd prevalence had reduced to just under 7%, although this was still significantly higher than the 1997 level.

7. An EU Directive sets out requirements for how bTB is monitored and controlled. Responsibility for compliance with the legislation falls to the Department. Actions to combat the disease include:

- regular testing of herds for the presence of the disease (some three million tests are carried out each year in Northern Ireland)
- slaughter of animals reacting to the test
- movement restrictions on farms where the disease is present.

8. Over the ten years to March 2006 the Department spent a total of £199 million on the bTB control programme, accounted for mainly by compensation payments to farmers for the compulsory slaughter of animals (£86 million) and payments to Private Veterinary Practices contracted to test herds (£54 million).

9. Since 1964 the Department's policy has been to eradicate bTB. However, from the mid-1990s, its view has been that eradication could no longer be considered anything other than a long-term goal. In the short-term, therefore, its policy is to control bTB, within realistic economic constraints. A bTB Policy Review in 2002 sought to address the high incidence of the disease. However, almost five years later, we found that a number of the issues raised, relating primarily to animal testing and movement control, had not been finally resolved.

NIAO Consultation with Key Stakeholders

10. We asked the Ulster Farmers' Union for their views on the control of bTB in Northern Ireland. In their response (see **Appendix 5**) they stated that the current scheme of herd testing, restriction and removal of infected cattle works reasonably well. However, they consider that the bTB control programme will never lead to eradication of the disease while a major reservoir of infection remains in the wildlife population; they recommend an overhaul of the programme if real progress is to be made. Also, they expressed their opposition to proposals for further cost-sharing between the Department and the farming industry, to combat disease, in the absence of a real say in how disease policies are made and delivered on the ground.

11. We also asked the Association of Veterinary Surgeons Practising in Northern Ireland for their views. They consider (see **Appendix 6**) that the bTB eradication programme here has been unsuccessful and that factors specific to Northern Ireland have contributed to this failure. They said that other countries have met with greater success and suggest the need to look at the differences in approach which have influenced this outcome.

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NIAO Overall Conclusion

12. Bovine TB has been a long-standing major problem in Northern Ireland and the Department's progress in tackling it has been slow. A range of initiatives, over the period from 1992 when disease levels were rising, enjoyed only limited success until 2003, when incidence of the disease began to fall. Since then progress has been made, with herd incidence of bTB having been reduced by some 50% from peak levels. However, while the general trend of the disease is decreasing, it remains significantly higher than the 1997 level and it is clear that much remains to be done.

Main Findings and Recommendations

Part 1: Background

Paragraph Reference	Our Main Findings	Our Recommendations
1.15	The Department has a 'Public Service Agreement' target to reduce the number of animals failing the bTB test (bTB reactors) to less than 7,225 in 2007-08. However, the number of reactors may fall if the level of testing simply reduces.	The Department could usefully introduce a second target, based on the *incidence* of animals/herds with bTB, as a percentage of those tested. This would, with the existing test, provide a more comprehensive basis for monitoring and reporting progress in disease control. We note that, in the NI Executive's first Programme for Government there is now a key goal to reduce the incidence of bTB by 27%.
1.16	The Department has a range of control measures in place to combat bTB, but it has not produced a consolidated bTB strategy document to bring together the various strands.	A formal, consolidated strategy document would be useful, both in helping to maintain focus on the key control and eradication measures and to facilitate the monitoring and measurement of progress.

Part 2: Testing for Bovine TB

2.33	The bTB skin test fails to detect up to one-in-four infected animals.	It is important that the Department continues to keep abreast of research and the latest developments on skin testing with a view to increasing its effectiveness.
2.34, 2.35	Since 1996, the Department has been considering the use of blood tests to supplement the standard skin test. The blood test was introduced in RoI (2005) and GB (2006) and an NI trial had positive results. We note that the Department introduced (in June 2007) a voluntary blood test. In March 2008, the Department said further policy development in this area will depend on scientific developments and the relative priority over other measures.	Given the limitations of the skin test, NIAO considers that there is a strong case for introducing blood tests.
2.36	Between 1996 and 2006, the transfer of bTB testing from in-house (DARD) vets to Private Veterinary Practitioners (PVPs) has cost the Department an estimated £2.7 million. While testing by PVPs has reduced overall, in-house vets undertake only 1% of 'routine' tests - far below the level of 10% which the Department may undertake under the PVP contracts.	We recommend that the Department takes early action to increase in-house 'routine' testing towards the 10% level. This would both reduce costs and provide a benchmark for quality review of PVP performance. It could also consider establishing other benchmarks - for example, comparison of results between PVP practices. We note the Department's comments that in-house veterinary staffing is now at their recommended level of 30 and that the NI Executive's current requirement for all Departments to deliver savings, including a reduction to the administrative budget, militates against taking on additional staff.

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2.37	We note the Department's comments that PVPs carry out some 98% of 'routine' tests and in-house staff 35% of 'non-routine' tests and that 'non-routine' tests are more likely to lead to the detection of diseased animals than 'routine' tests. However, within the same 'at risk' type of bTB test, PVPs detected markedly fewer reactors than in-house staff who were almost twice as likely to classify a herd as a breakdown herd. The Department is currently working on an update report which compares detection rates between PVPs and in-house staff.	We recommend that the Department reviews PVP bTB detection rates on an ongoing basis.
2.38, 2.39	Concerns have been raised about the quality of work being carried out by some PVPs. Also, the Department has not always carried out a proper programme of supervision of PVP testing, due in part to resource pressures.	The Department needs to ensure that it devotes sufficient resources to effectively supervise PVPs and explores other ways of further increasing the effectiveness of PVP work. We note the Department's comments that it is currently giving a high priority to PVP supervisions and has in place a range of PVP training initiatives.
2.42, 2.43	In disciplinary action against PVPs, the penalty has not always been commensurate with the seriousness of the breach. One PVP who falsely signed for tests performed by an unauthorised vet was reinstated after only one year's suspension.	In NIAO's view, the Department should not only consider prosecution in such cases, but should also terminate the contract and report the PVP to their professional body. We also consider that sanctions should be applied against the veterinary practice, as well as an individual PVP. We note the Department's comments, in June 2007 that, as part of its review of bTB testing arrangements, options considered included 'shadow' charging of PVP practices that breach contract terms and that this could eventually lead to 'hard fines' in the future.

		The Department said, in March 2008, that options for future arrangements for bTB testing will be considered after publication of this report.
2.44, 2.45	The Department said, in June 2007, that it was consulting with stakeholders on its 2006 'Review of bTB testing arrangements' which recommended enhancing the Department's monitoring and control of PVPs. We note the Department's comments, in June 2007, on PVP representative bodies' opposition to the main recommendations of the 2006 Review and that, having received the bodies' comments, the Department intended to go to public consultation. In March 2008, the Department told us that it was awaiting publication of our report before making proposals for future arrangements for bTB testing.	We consider it important that the Department completes the consultation process as a matter of urgency.

Part 3: Prevention of the Spread of bTB

3.25	Inadequate boundary fencing has impeded the successful control and eradication of bTB. The requirements for secure fencing are set out in the Department's Biosecurity Code. Proposed new legislation, to be introduced by Spring 2009, subject to the Assembly timetable, will provide the power to make compliance with new, disease-specific biosecurity codes mandatory.	With the necessary authority shortly to be in place, the Department must take steps to drive up the level of compliance with biosecurity measures, in as short a period of time as possible. It must also ensure that it effectively monitors and, where necessary, enforces compliance.

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3.26	The life-long learning programme for farmers promotes disease control and the development of individual farm biosecurity plans. Only 204 out of some 25,000 herdkeepers in Northern Ireland participated in the programme by March 2006 (against a target of 230). We note that the total number of herdkeepers who had participated in the programme by March 2008 stood at 889.	The Department needs to consider ways in which it can markedly increase the level of uptake each year.
3.27	The Department was slow to comply with the EU Directive which requires that livestock dealers involved in intra-Community trade are approved and registered - statutory authority to enforce the requirement was not put in place in Northern Ireland until April 2005.	Bearing in mind the role that dealers played in the Foot and Mouth outbreak in 2001, it is important to establish full control in this area. We note that legislation to cover internal trade within Northern Ireland is to be brought in by the Department by Spring 2009, subject to the Assembly timetable.
3.28, 3.29, 3.30	An EU taskforce, in 2000, recommended compulsory pre-movement testing for animals over one year old.	Given the risks of infection posed by cattle movement and the costs associated with infection, NIAO considered that this required urgent attention. We note that the Department decided, in June 2007, not to introduce bTB pre-movement testing. However, from Summer 2008, movement of single animals that have missed their annual test are now restricted after 15 months, until they are tested.

3.32, 3.33, 3.34	The Department's 2002 Policy Review highlighted a number of weaknesses in its research programme.	It is important that the Department devotes a level of resources to the programme, commensurate with the scale of the problem in Northern Ireland. The results of individual research projects should be written-up promptly and published. The Department should also, in line with DFP guidance, carry out post-project evaluations. We note the Department's comments that it intended to bring forward, by the end of 2008 (now early 2009), an R&D strategy linking its research programme to its strategic objectives. Also, that a Departmental Scientific Adviser would be appointed by early Autumn 2008 (now February 2009).

Part 4: EU Matters

4.26, 4.27	There are concerns about the Department's level of compliance with the EU Directive including: • a substantial number of annual herd tests were not completed within 12 months before tighter restrictions on overdue tests were introduced in November 2004. Also, until November 2004, the movement of animals was permitted where the annual herd test was past its due date • inadequate isolation and removal of bTB reactors • failing to remove, after the 1st re-test, animals again showing an 'inconclusive' result • the discontinuation (from 2003 to 2005) of Veterinary Officer visits to farms with bTB outbreaks	The Department should comply with the minimum requirements specified in the EU Directive. In the absence of compliance, there is always the risk of restrictions on the export of cattle and beef products, and financial penalties.

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	• the discontinuation (from 2002 to 2004) of physical inspections of these farms to verify they had been cleansed and disinfected. We note the Department's comments that: • the number of overdue herd tests has fallen significantly since the introduction of tighter restrictions in November 2004 • isolation checks on singleton reactors and inconclusives commenced in May 2007; and that, farmers have always had the option to voluntarily dispose of animals that have tested twice as inconclusive. These animals may be voluntarily slaughtered rather than being taken as reactors • the remaining areas of non-compliance with the EU Directive relate to the removal of inconclusive animals after the first re-test, because its assessment has been that the benefits would not outweigh the costs in financial terms.	
4.28	The Department has failed to secure funding from the EU Veterinary Fund in five of the years between 2000 and 2008 with a consequent loss of more than £2.85 million.	In our view, the Department should seek to maximise support from the Fund. We note the Department's comments that monies from the EU Veterinary Fund go to the Consolidated Fund and do not directly benefit the Department.

Part 5: Compensation, Enforcement and Tackling Fraud

5.29	No differentiation has been made by the Department in the rate of compensation it pays, between cases where bTB was subsequently confirmed and those where it was not.	The Department should consider varying the rate of compensation in these circumstances, as an added incentive to disease prevention. We note the Department's comments that this would require a change in legislation.
5.30, 5.31	The Department also makes no differentiation in multiple compensation claims where bTB has been a recurring problem within a given herd.	The Department should consider varying rates in such cases. We note the Department's comments that it has no discretion to do so under current legislation.
5.33	Prior to 2003, there was little enforcement activity. Since then, 15 cases have been successfully prosecuted. The Department has powers to withhold compensation in addition to fines imposed by the courts.	The Department should take a strong line on withholding compensation from herdowners who fail to comply with the well-established requirements on bTB testing and restriction notices.
5.35	Given the widespread incidence of bTB and the substantial sums that can be obtained in compensation, the inherent risk of fraudulent claims is clearly very high.	The Department should devote sufficient resources and apply the appropriate procedures necessary to ensure that it takes every opportunity to prosecute fraud. We welcome the increase, in 2006-07, in Enforcement Branch staff numbers.
5.36	It is a matter of concern that two herdowners successfully prosecuted for fraud received a total of £6,400 compensation for subsequent bTB outbreaks.	The Department should consider introducing a system of penalties against future compensation claims, where claimants have previously been found guilty of fraud. We note that the Department's legal advice is that this would not be possible under current legislation.

Part One:
Introduction and Background

Part One: Introduction and Background

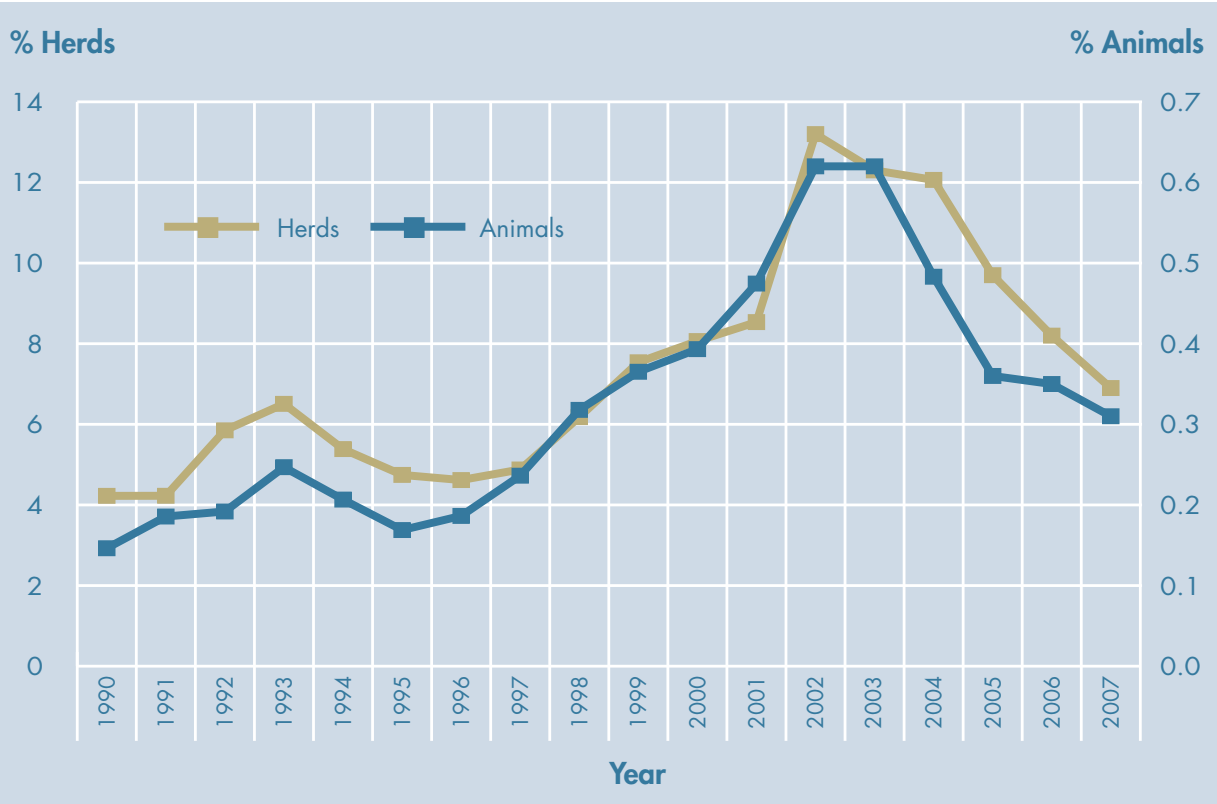
Introduction

1.1 Northern Ireland has some 25,000 herds of cattle, with 1.7 million animals. Bovine Tuberculosis (bTB) is an infectious, bacterial disease which affects the health and welfare of cattle, lowers productivity and fertility and impacts on herdkeepers' profitability. At least one quarter of herds in Northern Ireland have had bTB and, at December 2007, some 1,600 herds (just under 7%) were under disease restrictions.

1.2 Disease-spread among cattle is largely thought to be through close contact with a source of infection. Although bTB can be passed from cattle to humans, by close contact and unpasteurised milk, the risk of humans contacting bTB is very low - due primarily to the pasteurisation of milk and an animal testing and control programme introduced in the 1940s and 1950s.

1.3 From 1997, there was a significant increase in the prevalence of bTB in

Figure 1.1: Reactor Prevalence – Herd and Animal bTB Tests, 1990 to 2007



Source: DARD

Notes: 1. Herd prevalence is the number of herds with reactors, as a percentage of herds tested.
2. Animal prevalence is the number of reactors, as a percentage of animals tested.

herds in Northern Ireland, rising from just under 5% in 1997 to a peak of some 13% in 2002. In mid-2003, the Department noted that Northern Ireland had *"the highest [bTB] levels in Europe and incidence that has risen dramatically in recent years and continues to rise"*. By 2007, herd prevalence had reduced to just under 7%, although this was still significantly higher than the 1997 level.

1.4 The key Departmental stakeholders involved in combating bTB are TB and Brucellosis Policy Branch, the Veterinary Service, Science Service[1] and the Central Investigation Service. Details are set out in **Appendix 1**.

Legislation

1.5 European legislation – the 1964 Council Directive 64/432/EEC (the EU Directive) and subsequent amendments - has been put in place. It sets out requirements for the testing and intra-community trade of bovine (and swine) animals and places responsibilities on Member States on how bTB is monitored and controlled. In addition, there is Northern Ireland legislation:

- specifying bTB as a scheduled and notifiable disease
- implementing the EU Directive and requiring notification of, and movement restrictions on, suspect/diseased animals, and providing the Department with slaughter, valuation and compensation powers
- setting out the required examination and testing scheme.

1.6 Responsibility for compliance with all legislation falls to the Department. Actions to combat the disease include:

- regular testing of herds for the presence of the disease
- slaughter of animals reacting to the test
- inspection of all cattle slaughtered at meat plants
- movement restrictions on farms where the disease is present
- sterilisation of milk from an affected or suspected animal before feeding to animals
- investigation of disease incidents.

Expenditure on Bovine TB

1.7 Over the ten years to March 2006 the Department spent a total of £199 million on the bTB control programme (**Figure 1.2**). A full breakdown of the expenditure is provided in **Appendix 2**.

1. From 1 April 2006, Science Service has been part of the Agri-Food Biosciences Institute, a Non-Departmental Public Body.

Part One: Introduction and Background

Figure 1.2: Expenditure on Bovine TB Control Programme, 1997 to 2006

Expenditure Components	£million
Compensation	86
Private Veterinary Practices	54
Staff Costs	42
Other	17
Total Expenditure	**199**
Less Salvage Income	(23)
Net Expenditure	**176**

Source: DARD

Note: 'Salvage' income is the money received for the carcasses of slaughtered animals.

1.8 Compensation (to reimburse farmers for the compulsory removal and slaughter of bTB-infected and 'contact'[2] animals) has accounted for some 43% of total expenditure and payments to Private Veterinary Practitioners – PVPs (contracted by the Department to test herds for bTB) – another 27%. Departmental staff costs, which accounted for almost one quarter of overall expenditure, have not risen significantly over the period. Other costs include Tuberculin (the substance used to test for bTB) and the Department's Science Service costs (research and laboratory costs). The trends in expenditure over the 10-year period to 2006 are illustrated at **Figure 1.3**.

Costs to Farmers

1.9 The average cost of a bTB herd test to the herdkeeper, including collection of animals and test time, is estimated by the Department to be some £78 per herd. This amounts to a cost of around £1.8 million to the Northern Ireland agri-industry each year. Where the results of the bTB test prove positive, restrictions are placed on the movement of animals out of that herd. The additional cost of retaining animals falls to the herdkeeper. In 2002, the cost of retaining calves in an average dairy herd was estimated at up to £3,800 while, for beef farming, it was some £550 per herd.

Other Disease Outbreaks in Northern Ireland

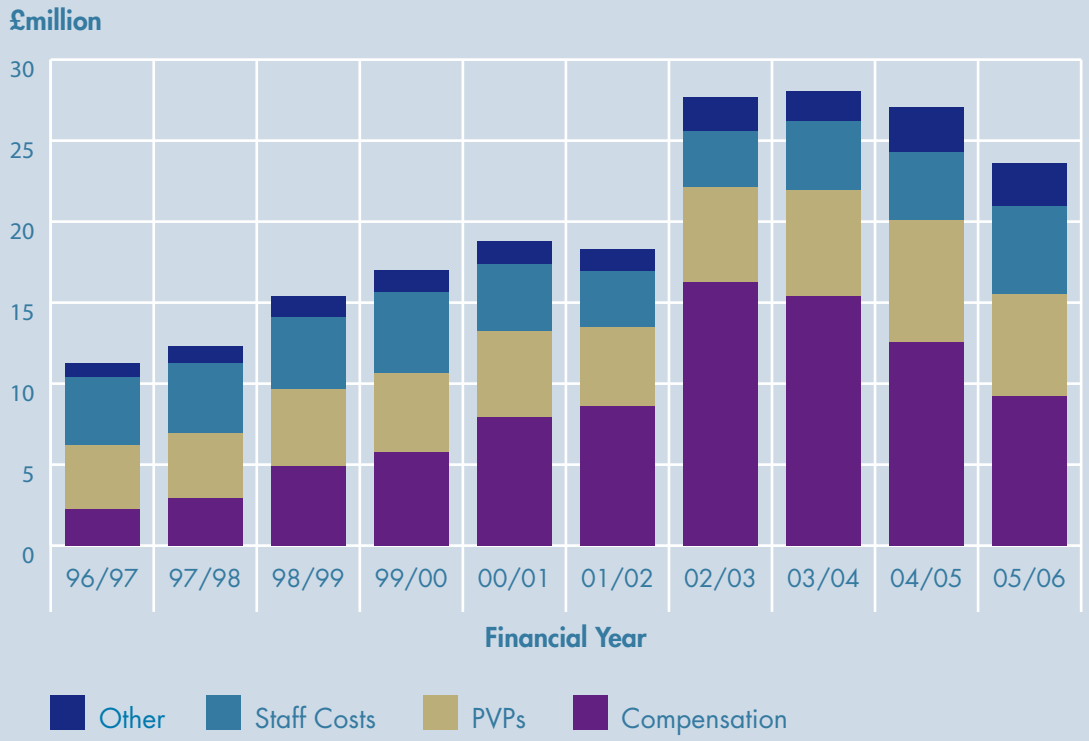
1.10 Since 1990, the Northern Ireland agricultural industry has faced a number of other disease crises, most notably BSE, Foot and Mouth Disease (FMD) and, from 1996, a very substantial increase in the incidence of Brucellosis. The outbreak of FMD, in February 2001, led to a ban on the movement of animals from farms. These restrictions were lifted in June 2001. The bTB testing programme was suspended during the FMD restriction period.

Enhanced bTB Eradication Programme

1.11 In January 1992, the Department launched an 'Enhanced bTB Eradication Programme' with the specific aim of reducing disease incidence to 1986 levels (when, on average, 0.06% of animals tested were bTB reactors). The programme cost £5 million and involved additional animal testing,

2 'Contact' animals are those animals considered by the veterinarian to have an increased risk of having a role in the disease process.

Figure 1.3: Trends of the Main Components of bTB Expenditure, 1997 to 2006



Source: DARD

improved education of herdkeepers and training for PVPs. The report of the 1995 Policy Review concluded that, while indications were that the programme delivered an improvement, the results were disappointing. A greater level of disease was found than anticipated and the significant drop in the disease level expected in the second and third years of the programme did not occur. Incidence levels at the close of the programme, in 1995, were just over 15% higher than at the start and some four times higher than targeted. The Department considered that several factors contributed to the failure of the Enhanced Programme to meet its objectives, including:

- delay in implementing the programme
- the reservoir of bTB infection was much higher than envisaged
- performance of PVPs in detecting bTB was below that of Departmental staff
- there had been avoidance of, and interference with, bTB tests together with a reluctance by some farmers to take Veterinary Service advice.

Part One: Introduction and Background

The Department's bTB Policy and the 2002 Policy Review

1.12 The Department's policy, which has been in place since 1964, is to eradicate bTB from the Northern Ireland cattle population. Following the Enhanced bTB Eradication Programme in 1995, the Department recognised that eradication of bTB in NI was *"unlikely to be a short term reality and low levels of the disease will remain well into the next century"*.

1.13 A bTB Policy Review by the Department in 2002 sought to identify measures to address the high incidence of the disease. The Department's intention had been to undertake the review in 1999 but, because of limited resources (initially, it had not planned for the necessary resources), this was delayed. It was further delayed by the outbreak of FMD in 2001. The review identified a range of areas for improvement and an action plan was produced to implement the recommendations. However, almost five years later, we found that a number of the issues raised, relating primarily to animal testing and movement control, had not yet been finally resolved. **Appendix 3** provides further details of the Department's progress.

1.14 In undertaking the 2002 Policy Review, the Department focused on the control of bTB, noting that under its current control programme, its eradication policy could *"no longer be considered anything other than a long-term goal"*. Notwithstanding, in June the following year, the Department expressed the view that *"it hoped that the revised control programme would lead to a further substantial reduction in disease incidence …* [and ultimately to] *…the effective long-term control of bTB"*. This was later qualified, in November 2003, with the Department acknowledging internally that *"in the short term,* [the policy is] *to control bTB, within realistic economic constraints"*.

1.15 In its Strategic Plan for 2006-2011, the Department has a 'Public Service Agreement' target to reduce the level of bTB reactors from some 13,200 in 2004-05 to less than 7,225 in 2007-08, – a reduction of some 45%. By March 2007, the annual number of bTB reactors had reduced to 8,600, a drop of some 35%. While we welcome the introduction of such a key target, we note, however, that the number of reactors detected may be subject to variation for reasons other than the prevalence of the disease – for example, the level of testing undertaken.

In our view, the Department could also usefully introduce a target based on the *incidence* of animals/herds with confirmed bTB, as a percentage of those tested. Together with the numbers of reactors detected, this would provide a more comprehensive basis for monitoring and reporting progress in disease control.

We note the Department's comment that in the Northern Ireland Executive's first 'Programme for Government', there is a key goal to reduce the incidence of bTB by 27%, by 2011.

1.16 We also noted that, while the Department has a range of control measures in place to combat bTB, unlike Great Britain, it has not produced a consolidated bTB strategy document to bring together the various strands.

> In our view, production of a formal, consolidated strategy document would be useful, both in helping to maintain focus on the key control and eradication measures and to facilitate the monitoring and measurement of progress.

EU Food and Veterinary Office Reports

1.17 In April 2004, the EU Food and Veterinary Office (EU FVO) reported the results of its November 2003 visit to Northern Ireland. Noting various failures to fully implement control procedures in the EU Directive, the report strongly criticised the Department's bTB programme, stating *"at all levels, no high level of commitment to disease eradication was seen… it is highly questionable that the eradication programme in place could lead to the eradication of bTB".*

1.18 The following year, in March 2005, the EU FVO issued a report on its 2004 visit (the most recent visit to date) and stated *"in Northern Ireland a major effort has been made since the previous FVO mission in 2003 and all recommendations made were addressed with the exception of milk from* [bTB infected] *animals, which is still allowed to be delivered to milk establishments. Despite the decrease in herd prevalence and incidence in 2003 and 2004, the numbers are still high and measures should be reinforced".* (The Department has pointed out that, since January 2006, under the Food Hygiene Regulations (Northern Ireland) 2006, introduced by the Food Standards Agency Northern Ireland, milk from bTB reactors must not be sold for human consumption).

Previous Coverage by the Public Accounts Committee

1.19 In January 1994, PAC reported on Animal Health Measures[3], including bTB, and made 12 recommendations relating, in the main, to the control and testing of the disease. **Appendix 4** sets out the Department's 1994 response to PAC's 12 recommendations and includes reasons why three of the recommendations (relating to the introduction of a bTB blood test) were not implemented by the Department. As a consequence, the benefits and potential savings in programme costs to which the blood test was expected to give rise, have not been realised.

1.20 The Department has pointed out that it was only in 2002 that the European Commission approved the 'gamma interferon' blood test as an ancillary (parallel) test to the EU–recognised skin test (see paragraph 2.8). Prior to this, it was not officially recognised. The Department's use of the blood test in problem herds, from 2007, is set out at paragraphs 2.9 to 2.11.

3 PAC 1st Report, Session 1993-94, 'Department of Agriculture: Animal Health Measures', HC23.

Part One: Introduction and Background

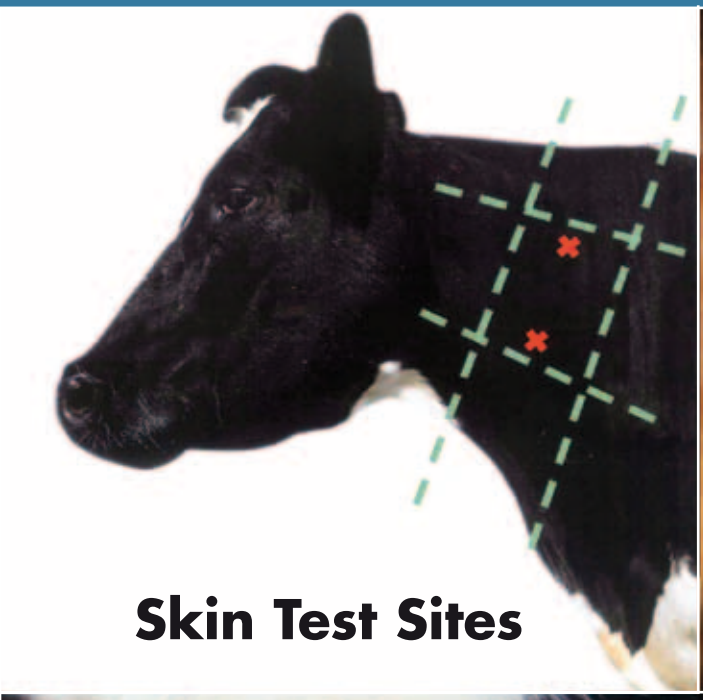
Scope of the NIAO Review

1.21 As a follow-up to the earlier PAC review and in light of the rising incidence and cost of bTB and the EU FVO criticisms, we examined the Department's handling of the control and eradication programme, as follows:

- bTB testing procedures (Part 2 of the report)
- measures to combat bTB spread (Part 3)
- EU matters (Part 4)
- compensation, enforcement and tackling fraud (Part 5).

1.22 We were assisted by a GB-based veterinary practitioner with experience of, and a special interest in, bTB. We also contacted the main bodies representing farmers' and private veterinary practitioners' interests in Northern Ireland (see **Appendices 5** and **6**).

Part Two:
Testing for Bovine TB



Skin Test Sites

Skin Testing

Blood Testing

Part Two: Testing for Bovine TB

Introduction

2.1 Under the EU Directive, as a minimum requirement, all cattle herds in Northern Ireland (some 25,000, with 1.7 million animals), are required to undergo a routine annual herd test (or AHT). Tests must be undertaken by qualified veterinarians, either employed in-house by the Department or contracted from Private Veterinary Practitioners (PVPs). Most AHTs are undertaken during the winter months, when animals are housed. The Department told us that, in addition, considerable numbers of herds are tested more frequently, as a result of risk analysis.

2.2 This section of the report examines:

- the adequacy of the existing bTB test procedure - the skin test (paragraphs 2.3-2.11)
- the quality and cost of bTB testing by PVPs (2.12-2.32).

Test Procedures

2.3 Under the EU Directive, a herd is considered to be officially tuberculosis-free if:

- all the animals are free from clinical signs of tuberculosis
- testing is undertaken at the intervals required by the Directive
- all animals tested have reacted negatively to the test
- all animals brought into the herd come from an 'Officially Tuberculosis-Free Herd'.

The Skin Test

2.4 The skin test[4] is the EU-recognised test for identifying the presence of bTB in cattle. It produces one of three results:

Negative - the animal is deemed clear of bTB

Positive - the animal is deemed to have bTB and is classified as a 'reactor'

Inconclusive - the bTB result is not conclusive, so the animal is a bTB 'suspect'.

The skin test procedure and actions taken following skin test results is given in **Appendix 7**.

2.5 The actual presence of the disease can only be confirmed once the animal is slaughtered, following examination of the carcass and culture of the disease bacterium in the laboratory, (although the Department said that lack of visible post mortem changes or laboratory results do not necessarily indicate freedom from disease). Where a reactor is detected during a herd test:

4 The standard bTB test in the UK is the *'Single Intradermal Comparative Cervical Tuberculin Test'*.

- the herd is called a *'breakdown'* herd (whether disease is subsequently confirmed or not)

- the reactor animals are removed for slaughter

- other movement of cattle from the herd is subject to restrictions

- the Department's in-house veterinarian may re-interpret the original test results to reclassify additional cattle e.g. suspect animals or 'inconclusives' may be reclassified as reactors and slaughtered and the Department may also remove cattle deemed at increased risk (known as 'negative in contact')

- additional bTB tests are undertaken on:

  - the remaining animals in the breakdown herd – *'Restricted Herd Tests';* in the majority of cases, these are carried out every 60 days until all animals within the herd have had two consecutive negative tests i.e. the herd is deemed clear of bTB

  - other herds which are at risk – *'At Risk Herd Test'*. Herds are associated if there is an increased risk of disease transmission compared with other herds, such as neighbouring herds and herds with *'a significant shared movement history'* during the relevant period. Such herds are subject to the same herd status, restrictions and testing regime as the breakdown herd. In addition, routine tracing of animals is undertaken where veterinary assessment considers it necessary following post mortem confirmation of the disease or if significant numbers of animals are suspected as diseased without post mortem. In these cases, the 'at risk' tests undertaken (known as backward and forward check tests) cover any herds from which reactor animals were purchased/obtained and those herds containing animals acquired from the breakdown herd or any herd through which they may have passed.

As a consequence of the additional testing required, an animal may undergo more than one test in a given year. However, animals may become desensitised to the skin test, if tested frequently.

The Quality of the Skin Test

2.6 The skin test is not 100% accurate. Its accuracy can be expressed as a combination of its 'sensitivity' (its ability to correctly identify infected animals) and its 'specificity' (its ability to correctly identify uninfected animals):

Sensitivity

- the sensitivity of the skin test is thought to be between 77% and 95% - if used in optimal conditions. Therefore, for every 100 bTB-infected animals tested, between 5 and

Part Two: Testing for Bovine TB

23 will go undetected. These bTB-infected animals remain as potential transmitters of the disease. For example, in 2005-06, this equated to between 544 and 3,091 additional infected animals (based on 10,349 identified reactors in that year).

Specificity

- the specificity of the skin test, estimated at 99.96%, is very high. Even so, this means that for every 10,000 disease-free animals tested, four will be incorrectly classified as infected and treated as reactors. In Northern Ireland, this equates to some 680 animals out of 1.7 million tested annually, with compensation costs of some £0.6 million. It may also lead to other breakdowns being declared and, thereby, further costs of slaughter, testing and compensation.

The Department commented that the skin test is the internationally accepted standard and, currently, is regarded as the best method available for the diagnosis of bTB infection in live cattle. It added that no screening test is perfect and the skin test is no exception.

The Numbers and Categories of bTB Skin Testing

2.7 As the level of bTB rises, the number of 'restricted' and 'at risk' herd skin testing also rises (see **Figure 2.1**). Since the 1992-94 Enhanced Programme, the number of skin tests rose by 41%, from 2.2 million in 1996 to 3.1 million in 2004, thereafter falling slightly, to 2.9 million, in 2005. Between 1996 and 2005, 'restricted' and 'at risk' skin testing increased by 79% and 145% respectively, with a consequent 30% fall in routine skin testing.

The Blood Test

2.8 The 'gamma interferon' blood test is an ancillary test that may be used to complement the skin test. It is recognised by the EU as a useful *additional* test to, but not a replacement for, the skin test. This is because the blood test, when compared with the skin test:

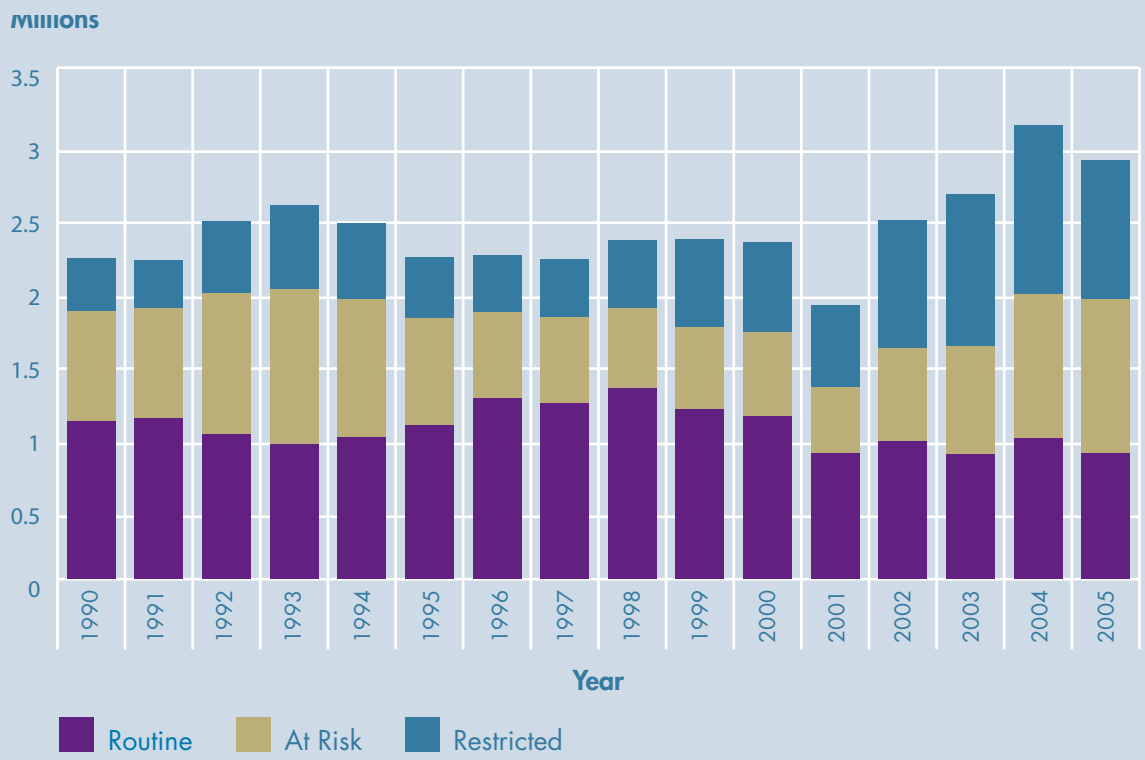
- does not identify all infected animals detected by the skin test
- identifies, as blood test positive, additional animals not detected by the skin test (i.e. skin test negative) and which may not subsequently be confirmed by post mortem, or laboratory examination.

The advantages of using a blood test are noted in **Appendix 4**.

Use of the Blood Test in Problem Herds

2.9 In the early 1990s, the Department evaluated the use of the blood test to diagnose bTB. It undertook 100,000 blood samples and compared the results against those generated for the same animals from the skin test. Both tests detected the same number of diseased cattle but not in the same animals. The Department considered that this confirmed

Figure 2.1: Trends in Numbers and Categories of Skin Test Undertaken, 1990 to 2005



Source: DARD

Notes: 1. Additional testing was undertaken during the period 1992-1994 as part of the Enhanced Programme.
2. Testing was suspended for part of 2001 during the FMD outbreak.

its understanding that both tests detect different but overlapping aspects of the infection. In 1996, the Department concluded that the blood test could *not* be used as a replacement for the skin test, but may have a role as a supplementary test in problem herds.

2.10 Following the 2002 Policy Review, a Departmental Working Group recommended, in December 2003, its use in a selection of bTB infected herds. Some seven months later, in July 2004, a year-long voluntary blood test trial of chronically-infected herds commenced in the two highest incidence Divisional Veterinary Office (DVO) areas. The Department considered that the blood test trial had contributed to reducing the level of bTB and the trial was extended to include the next three DVO areas with the highest incidence of bTB.

2.11 We note that, since 1996, the Department has been considering the use of the blood test in herds under restriction. The blood test was introduced in problem herds in the Republic of Ireland in 2005

Part Two: Testing for Bovine TB

and rolled-out in England and Wales from October 2006. In July 2006, the Department told us that, following completion of the extended trial, a decision would be taken on the Northern Ireland-wide introduction of the blood test as part of the bTB control programme. The Department introduced the blood test, on a voluntary basis, in June 2007.

Testing Undertaken by Private Veterinary Practitioners (PVPs)

PVP bTB Test Workload

2.12 PVPs are contracted by the Department to undertake *"approximately 90% of the routine testing"* (the Annual Herd Test) each year. PVPs also undertake 'restricted' and 'at risk' herd testing, as required, with the balance undertaken in-house by the Department. **Figure 2.2** shows the relative proportion of work undertaken by PVPs and the Department. PVPs carry out the bulk of the work.

2.13 We noted, however, that, from 1995, following completion of the Enhanced Programme, the Department reduced the number of in-house veterinary staff employed to conduct bTB testing, from 32 in 1996 to 12 in 2003. As a result, the amount of testing carried out by PVPs increased. During 2004 and early 2005, the Department appointed an additional 17 veterinary staff to carry out bTB testing, taking the total at March 2006 to 29, one less than the 30 recommended in the 2002 Policy Review. More recently, therefore, the amount of 'restricted' herd testing undertaken by PVPs has been reducing. However, the level is still substantial and the volume of 'routine' testing undertaken in-house remains far below the level of 10% which the Department may undertake under the PVP contracts (see **Figure 2.2**).

2.14 We reviewed the Department's use of PVPs for bTB testing and noted a number of areas of concern regarding:

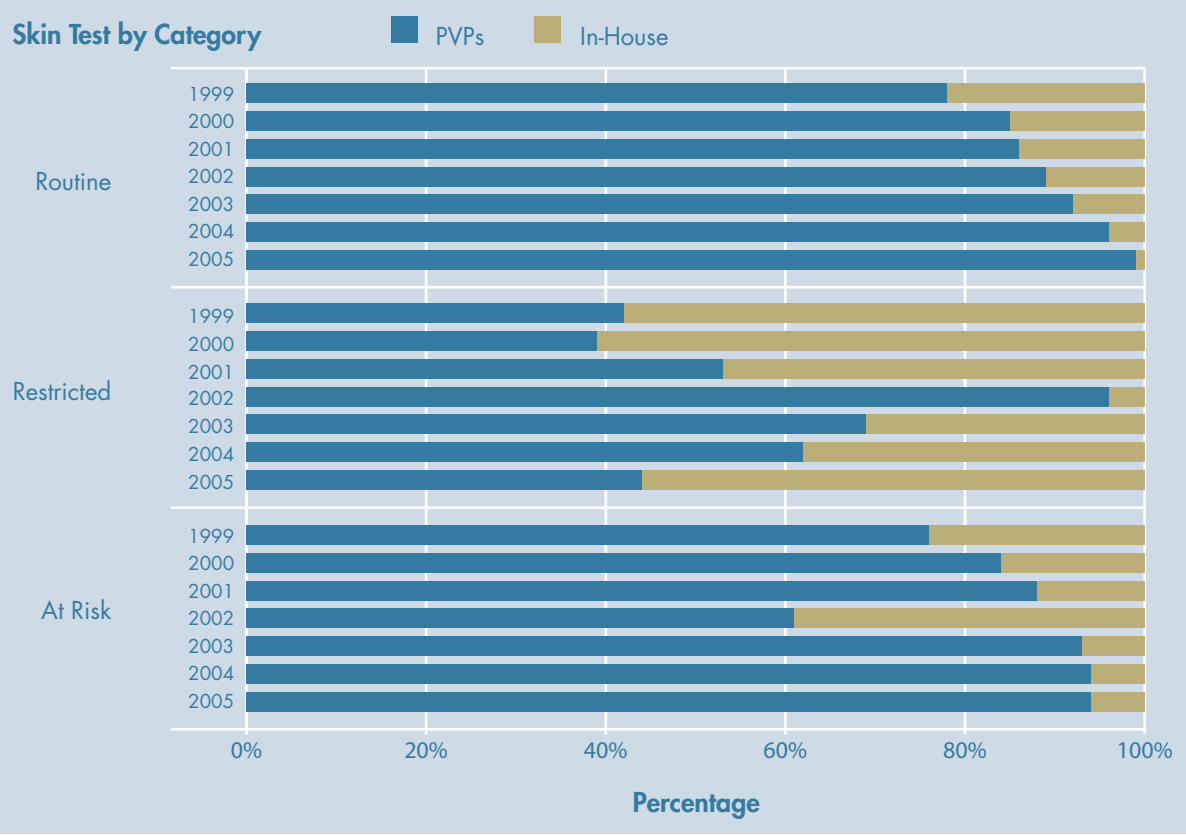
- cost of PVP testing
- quality of PVP testing
- monitoring and supervision of PVPs.

Cost of Private Veterinary Practitioner Testing

2.15 In their 1994 report on Animal Health Measures (paragraph 1.19), the PAC recommended that the numbers of in-house veterinary staff engaged on bTB testing be increased, as a means of generating savings. We found it surprising, therefore, that, in the wake of the PAC report, the Department actually reduced the number (paragraph 2.13).

2.16 Over the past ten years, the Department has paid £54 million to PVPs for bTB testing. Annual costs almost doubled, from £3.9 million in 1996-97 to £7.5 million in 2004-05, before reducing to £6.3 million in 2005-06. Reductions in the numbers of in-house staff (paragraph 2.13) contributed to the substantial increase in the level of testing carried out by PVPs. The cost of a test by a PVP is higher than that of a test undertaken

Figure 2.2: Levels of Skin Testing Undertaken by PVPs, 1999 to 2005



Source: DARD

in-house. Figures calculated by the Department for 2003 showed that the average cost of a PVP test was £3.26 against an in-house cost of £1.99. We estimate that, over the 10-year period to March 2006, the transfer of in-house testing to PVPs has cost in the region of an additional £2.7 million.

Quality of Private Veterinary Practitioner Testing

2.17 The Department has said that detection rates differ considerably between PVPs and in-house staff. In its view, this may be explained by the differences in the type of testing undertaken by each group. **Figure 2.2** shows that, over the seven years 1999-2005, the Department's staff were more likely to be involved in 'at risk' and 'restricted' tests and carried out comparatively few routine tests. The Department explained that diseased animals are more likely to be found in 'at risk' and 'restricted' herds and, therefore, direct comparison between PVP and Departmental staff is more

Part Two: Testing for Bovine TB

difficult. However, when the Department compared the performance of PVPs and in-house staff in detecting bTB - first between 1988 and 1993, and then from 1992 to 1997 - based on the same 'at risk' testing type[5], it identified that:

- as a group, in-house staff were 1.5 to 1.8 times more likely to classify a herd as a breakdown herd than PVPs

- at the individual level, PVPs detected reactors at a lower rate than in-house staff; in one case a PVP detected only one inconclusive animal and no reactors from 27,000 bTB tests.

In February 2003, the view was expressed in the Department's Veterinary Service that it was likely that the *"failure to make progress in the eradication of TB is due, at least in part, to poor testing by PVPs"*. The Department said that, since the earlier study, it has strengthened its supervision arrangements. The Department told us that it is currently carrying out a comparison of disclosure rates between the position in the late 1990s and the present day.

2.18 We also noted that, in February 2002, the Chief Veterinary Officer wrote to PVPs stating that, *"In recent months the attention of Veterinary Service has been drawn to instances where a few PVPs have carried out work as representatives of DARD in a manner which falls well short of that which might reasonably have been expected. It is failing in its duty unless it ensures that the job is done properly."*

2.19 Between 2003 and 2004, the Department identified a number of other areas where the standard of PVP testing was of poor quality:

(1) Late Reporting of Results:

- On average, PVPs were taking five days instead of one day, as required, to forward positive test results. On only 37 occasions, however, out of 134 herd tests where PVPs had not reported positive reactors promptly, did the Department issue a warning letter to the PVP concerned.

- To improve matters, the Department introduced an internet 'e-PVP' link, between the PVP practices and the Department, with roll-out in 2004. Figures for 2005 show an improvement, with some 59% of PVPs meeting the one-day deadline. However, the overall average submission time for 2005 was four days.

(2) Testing of Exempt Animals:

- In 1999, the EU Directive was amended to *'exempt'* calves of less than six weeks old from bTB testing, but only where they were retained in their natal herd. An exercise undertaken by the Department to check on implementation found, however, that PVPs had been testing *all* calves – during the period August 2002 to April 2004, PVPs had tested a total of 33,302 calves that were less than six weeks old.

5 The comparison took account of differences in herd size, the severity of breakdown in the associated herd and the pattern of allocation of tests between PVPs and in-house staff.

Later, the Department could not identify which of these had/had not been retained within the natal herd and so could not confirm how many should have been exempted from testing. As a result, an unknown amount of nugatory expenditure had been incurred. If, for example, half of the calves tested should have been exempted, a sum of around £54,000 was spent unnecessarily, in the 21-month period involved. Given that the misinterpretation of the Directive had, by that stage, lasted for a period of some seven years, it would appear that, in total, a substantial sum has been wasted.

- During the course of our review, it also transpired that the Department's understanding of the EU Directive was that *all* calves less than six weeks old were ineligible for bTB testing. This too was a misinterpretation of the Directive. We found that, as a result, the Department's in-house veterinary staff had been incorrectly exempting calves of less than six weeks old, that had *not* been retained in the natal herd, from bTB testing. As a result, the risk of cross-infection, through non-detection of infected animals, had been increased.

(3) Failure to Check Dates of Birth:

- As part of the exercise covering the period August 2002 to April 2004, the Department found that, contrary to established guidelines, PVPs undertaking annual herd tests had not been checking herd records. The Department told us that this is no longer the case - PVPs are now examining herd records, including dates of birth.

(4) Health and Safety Requirements:

- 51 out of 89 PVP practices failed to comply with the contractual requirement to forward a copy of their safety policy and risk assessment for bTB testing to the Department.

(5) Use of Out-of-Date Tuberculin:

- 21 PVPs had been using out-of-date Tuberculin when testing, even though the date is clearly marked – see Case Study 'A'.

Case Study 'A'

The Department arranged for a PVP to undertake a Restricted Herd Test on a problem herd, which was completed on 8 July 2004. Despite the Divisional Office telephoning for the results, the PVP did not forward the test report until 19 July, 11 days later. The test report revealed two problems:

- the Tuberculin used was almost two months out of date – it had expired on 7 May
- there were 17 reactors - the Department should have been informed of this within one day of test completion.

The test was deemed invalid. As a result, the disease status of the 17 reactors was not confirmed and so they could not be valued or

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removed to slaughter. A re-test in September 2004 revealed 19 reactors. While five of the original 17 reactors showed a negative test result, they were treated as 'in-contacts' and all 24 animals were removed to slaughter.

Monitoring and Supervision of Private Veterinary Practitioners

2.20 In 1998, a Departmental bTB Strategy Group recommended improved supervision of PVPs through criteria-based targeting, focusing on the amount of testing undertaken and previous performance. Five years later, in November 2003, a Senior Departmental Veterinary Officer admitted that, due to resource pressures, PVPs had not been supervised twice-yearly as required, noting that it was difficult to defend the Department's suspension, until March 2004, of the next round of 10 planned supervisions. The importance of good supervision was highlighted by his comments that, *"it must be a matter of deep concern that a significant percentage of PVPs are found wanting when supervised."*

2.21 In reflecting upon the Department's difficulties in supervising PVPs, the Senior Veterinary Officer commented that, *"Supervision of PVPs is not a popular work area for Veterinary Officers…This has led historically to a low percentage of targets achieved with poor standardisation* [and a] *perceived lack of clear, strong support from headquarters…"* However, he also noted that using two Veterinary Officers had resolved a number of these issues.

2.22 In 2005-06, of 76 supervisions carried out 32 (42%) were 'not fully satisfactory' and 6 (8%) were of a 'not acceptable' standard. Also, an administrative audit of 81 out of 85 approved bTB PVP practices revealed a significant divergence between standards of delivery and their requirement under contract.

2.23 The Department informed us that all PVPs seeking approval to undertake bTB testing in Northern Ireland attend a 2-day seminar on the bTB programme (including testing technique), are given practical instruction by their practice principal and undergo a field examination by a Departmental Veterinary Officer. Also, proposals are in place for the deliverers of bTB training to share training sessions with RoI in recognition that many PVPs operate in both jurisdictions. In addition, bTB is raised in PVP meetings and through liaison meetings with their representative bodies.

The EU Food and Veterinary Office Findings, 2003

2.24 In 2003, the EU FVO witnessed the reading of skin test results by a PVP in one herd and found that:

- the injection site had not been cleansed prior to the test
- the skin-fold thickness was not always measured exactly at the injection site
- because of the limitations of the calliper measurements, a number of inconclusive or reactor animals may have been missed.

Suspension of Private Veterinary Practitioners

2.25 Where the Department considers that a PVP has not been performing their duties properly, it can suspend his/her contract. We noted, however, that, for many years, the Department had not set clear breach criteria to assist in assessing the need for suspension.

2.26 In the four years 2003 to 2006, the Department temporarily suspended 22 PVPs for periods of between one week and a year, mainly because of inadequate clipping (of the hair of an animal, at the test site), incorrect siting of injections, poor or faulty equipment and improper measuring of results – see **Figure 2.3**.

2.27 In one case in 2003, a sole PVP principal was suspended for one year, at an estimated cost to the practice of £24,000, for falsely signing tests which had been performed by an unauthorised vet. We noted, however, that after the year, the suspension was lifted and the PVP resumed testing for the Department. The Department had referred the case to the Director of Public Prosecutions who considered there was insufficient evidence to support a prosecution. The Department also considered reporting the PVP to his professional body (the Royal College of Veterinary Surgeons - RCVS) but decided not to pursue this course of action. In our view, given the seriousness of the breach in this case, it would have been appropriate for the Department to have terminated the contract and reported the PVP to the RCVS.

2.28 In another case, a PVP who had failed to cleanse and disinfect his protective clothing (an important biosecurity measure to prevent disease spread) and to check herd numbers was suspended for a period of just one week. In our view, such a trivial suspension for failing to apply the Department's procedures - on two counts – did little to deter future breaches.

2.29 In August 2005, the Department issued a 'Protocol for supervision of PVPs carrying out TB testing for DARD'. Under the protocol, where suspension is considered appropriate, the period of suspension will normally be between three and 12 months, depending on the seriousness of the breach. For PVPs who have previously been suspended (within the preceding five years), a further breach of contract will normally result in a period of at least 12 months suspension and notification to the RCVS.

2.30 In our view, the protocol would be strengthened if it allowed for sanctions to be applied against a veterinary practice, as well as the individual PVP. This would help to ensure that the principals of veterinary practices took an active role in overseeing the quality of bTB testing arrangements.

Departmental 'Review of bTB testing arrangements'

2.31 In June 2005, in response to the findings of a 2003 Working Group (arising out of the 2002 Policy Review), the Department commissioned consultants to review the

Part Two: Testing for Bovine TB

Figure 2.3: PVP Suspensions, 2003 to 2006

Year	PVP Suspended	Length of Suspension	Reason(s) for Suspension
2003	PVP 1	3 months	Clipping, recording of injection site
	PVP 2	3 months	Late reporting of test results
	PVP 3	1 year	Signed tests he did not do, use of unauthorised PVP
	PVP 4	3 months	Clipping, record of injection site, disinfectant, equipment
	PVP 5	1 month	Clipping, siting
	PVP 6	3 months	Measuring technique, clipping, siting, examining
	PVP 7	3 months	Measuring, clipping, siting
	PVP 8	6 months	Protective clothing, clipping, siting, identification/recording of cattle
2004	PVP 9	6 months	Discarding blood contaminated materials, clinical waste left in a public place
	PVP 10	4 months	Siting of injection, condition of callipers
	PVP 11	6 weeks	Maintenance and condition of syringes
2005	PVP 12	3 months	Accuracy of readings, checking of ear tags
	PVP 13	1 week	Cleansing and disinfecting of protective clothing, failure to read herd numbers
	PVP 14	9 months	Failure to palpate injection sites, one-handed measurements, failure to wear holster
	PVP 15	1 month	Siting of injection, visibility and spacing of clip marks
2006	PVP 16	9 months	Failure to properly clip injection site, failure to properly identify clip marks
	PVP 17	7 weeks	Siting of injection, failure to clinically examine an inconclusive animal
	PVP 18	3 months	Failure to wear holsters, one-handed skin measurements
	PVP 19	9 months	Failure to use proper bTB form, recording skin thickness, siting of injection, re-injecting at same site
	PVP 20	6 months	Failure to use proper bTB form, reading and recording of ear tags
	PVP 21	2 months	One-handed measuring technique
	PVP 22	1 month	Faulty injection gun, absence of 'peas' (*swelling under skin*)

Source: DARD

existing bTB testing arrangements in Northern Ireland. The terms of reference required the consultant to:

- assess the value for money afforded by the present approach
- review arrangements for negotiating contracts with PVPs
- consider the adequacy of the allocation of tests to PVPs and the monitoring of contracts

- assess conflict of interest issues in relation to PVP/client relationships

- identify alternatives in allocating and managing bTB testing, including the scope to tender.

2.32 In their 'final' report of November 2006, the consultants considered that the best option for the Department was to continue using PVPs to complete existing levels of testing, but to enhance the monitoring and control framework. Improvements recommended included:

- enhancement of the existing contract to include clearly defined service levels and quality targets

- extension of supervision and monitoring of PVPs to ensure full compliance with all aspects of bTB testing

- development of key performance indicators to monitor overall performance such as the timeliness of reporting, compliance with the registration process, outcome of supervisions

- development of a communications programme with key stakeholders, to include:
  - rules for the allocation of testing to both in-house staff and PVPs to ensure consistency across all regional offices

  - establishment of a discussion forum with PVPs

  - review of management information systems to assess how the data held could be utilised to inform overall performance

- consideration of the development of a penalty regime for persistent non-compliance with contracts

- introduction of a requirement for PVPs to confirm on-going compliance with registration criteria on Health and Safety policy, insurance and confirmation that all PVPs within the practice have RCVS registration.

The Department said, in June 2007, that having reviewed the consultants' report, it was consulting with stakeholders on the proposed way forward. A PVP representative body (the AVSPNI) had indicated a number of areas of concern - see **Appendix 6**. The Department has since told us that it consulted informally with AVSPNI about the consultants' report, following which AVSPNI submitted detailed comments. The Department also said that it has altered its approach since June 2007 – it now intends to await the publication of NIAO's report on the control of bTB before making any proposals for bTB testing, as it wishes to take our findings into account.

Part Two: Testing for Bovine TB

NIAO Conclusions and Recommendations

On the use and timing of the skin test

2.33 It is clear that the bTB skin test is not always accurate. The limited *'sensitivity'* of the test is such that it fails to detect up to one in four infected animals. As a result, a reservoir of infected animals can remain within a herd, with the potential to transmit the disease. In addition, even though the *'specificity'* of the test is very high at 99.96%, an average of four animals in 10,000 will produce a false-positive result. This leads to additional costs in terms of slaughter and compensation and may even result in a disease-free herd being declared a breakdown herd. It is important, therefore, that the Department continues to keep abreast of research and the latest developments on skin testing, with a view to increasing its effectiveness within the bTB control and eradication programme.

On the introduction of a blood test

2.34 Although, since 1996, the Department has been considering the introduction of the bTB blood test, we found that it had yet to introduce it as a routine supplementary test in all problem herds. Given that the test had been introduced in the Republic of Ireland (in 2005) and in Great Britain (in 2006) and also that the Northern Ireland blood test trial yielded positive results, we felt it important that the Department reaches a decision, as a matter of urgency, on whether or not to use the blood test on a routine basis in problem herds. In view of the obvious limitations of the skin test and the fact that bTB remains a major drain on resources in Northern Ireland, NIAO believed that there was a strong case for its introduction.

2.35 We note the Department's comments that, in June 2007, it launched a voluntary blood test scheme (with compensation) but before rolling out on a wider basis it needs to overcome the logistics of transporting and testing samples on the same day. In March 2008, the Department told us that further policy development in this area will depend on scientific developments and the relative priority over other measures.

On the use of PVPs to undertake bTB testing

2.36 Despite PAC's recommendation in 1994 that the Department increase the number of its in-house veterinary staff as a means of generating savings, numbers were markedly reduced, from 32 in 1996 to 12 in 2003, even though the average cost of a skin test undertaken by a PVP in 2003 was some 60% higher. We estimate that, over the 10-year period to March

2006, the transfer of testing to PVPs has cost the Department in the region of an additional £2.7 million. Following the recruitment of an additional 17 in-house veterinary staff in 2004 and 2005, the proportion of testing undertaken by PVPs has been reducing, but the level is still very substantial, with 'routine' testing undertaken in-house remaining far below the level of 10% which the Department may undertake under the PVP contracts. We recommend that the Department:

- takes the necessary action, at the earliest opportunity, to increase in-house 'routine' testing from 1% towards the 10% level to provide a benchmark for quality review of PVP performance. It could also consider establishing other benchmarks - for example, comparison of results between PVP practices

- considers whether the level of testing undertaken by PVPs could be further reduced, as a means of further reducing costs.

We note the Department's comments that in-house bTB veterinary staffing is at the recommended level of 30 and, in 2006-07, it undertook some 24% of all bTB herd tests; these were predominantly 'restricted' and 'at risk' tests which it sees as a priority in disease terms. It also said that the Northern Ireland Executive's current requirement for all Departments to deliver savings, including a reduction to the administrative budget, militates against taking on additional staff at this time.

2.37 Many concerns have been raised, within the Department, about the quality of work being carried out by a number of PVPs.

- We note the Department's comments that PVPs carry out some 98% of 'routine' tests and in house staff 35% of 'non-routine' tests and that the 'non-routine' tests are more likely to lead to the detection of diseased animals than the 'routine' tests. However, in a comparison of performance over two separate periods within the same 'at risk' type of bTB test, PVPs detected markedly fewer reactors than in-house staff who were found to be 1.5 and 1.8 times more likely to classify a herd as a breakdown herd. We note that the Department said it is currently working on an updated comparison of detection rates between PVPs and in-house staff

- some PVPs often failed to notify positive test results within the required one-day period

- some PVPs were testing exempt animals

- PVPs were not checking herd records

Part Two: Testing for Bovine TB

- over half of contracted PVPs failed to produce their safety policy and risk assessment for bTB testing
- some skin tests were invalidated because the Tuberculin used was out-of-date
- testing was not always carried out in accordance with regulations (a weakness which was also noted by the EU during a visit).

2.38 The evidence also shows that, on occasion, the Department had not been carrying out a proper programme of supervision of PVP testing, due, at least in part, to resource pressures. Ironically, poor quality work by PVPs increases the risks of disease spread and fundamentally undermines the Department's bTB control and eradication programme, thereby adding to its resource costs. The Department needs to ensure that it devotes sufficient resources to supervise PVPs effectively.

2.39 We note the Department's comments that it is currently giving a high priority to PVP supervisions and that any PVP suspended following a supervisory visit is obliged to attend a bTB training seminar following re-instatement. It also said that because PVP supervision is a resource costly exercise it has introduced a system of targeted visits and a routine area check. In addition, in 2005-06 it carried out a programme of administrative audits on all PVP practices in Northern Ireland (these are less resource intensive as several aspects can be completed remotely using IT). These are welcome initiatives. However, given that there are continuing problems we recommend that the Department explores other ways of further increasing the effectiveness of PVP work.

2.40 We also recommend that the Department reviews PVP bTB detection rates on an ongoing basis, to monitor whether the average rates are consistent with those of in-house staff. In order to ensure that such in-house detection rates provide an effective benchmark, it will be important, as stated in paragraph 2.36 above, that routine testing levels are increased to the 10% level which the Department may undertake under the PVP contracts. We note the Department's comments in June 2007 that, following its review and analysis of the 'Review of bTB testing arrangements' (see paragraphs 2.31 and 2.32), it was liaising with stakeholders before deciding on the way forward and that, as part of this process, it would be considering ways of improving communications with PVPs, including the areas of monitoring and reporting. We note also that, in March 2008, the Department told us it had consulted informally with the AVSPNI about the review of bTB testing arrangements report and that it intends to await the publication of NIAO's report before making any proposals for future bTB testing, in order to also take our findings into account.

On disciplinary action against PVPs

2.41 While the Department can suspend the contracts of PVPs who breach bTB testing and other procedures, cases of disciplinary action appear relatively few, given the many concerns about the quality of work by some PVPs. This may have been caused, in part, by the absence until mid-2005 of clear breach criteria for suspension.

2.42 Also, it appears to us that the weight of penalty applied by the Department has not always been commensurate with the seriousness of the breach. We note that the PVP who was suspended for falsely signing tests which had been performed by an unauthorised vet was reinstated after one year and resumed testing for the Department. Although prosecution was not pursued on the direction of the Director of Public Prosecutions, in our view, given the seriousness of the offence, it would have been appropriate for the Department to have terminated the contract and reported the PVP to his professional body. While the introduction in August 2005 of a PVP Supervision Protocol provides the Department with scope for tougher penalties, it is important to ensure that the penalty applied reflects the gravity of the offence.

2.43 We also consider that the Department's protocol would be further strengthened if it allowed sanctions to be applied against a veterinary practice, as well as an individual PVP. This would help to ensure that the principals of practices took an active role in overseeing bTB testing arrangements. We note the Department's comments, in June 2007, that options being considered, as part of its review and analysis of the 'Review of bTB testing arrangements', included 'shadow' charging of PVP practices that fail to meet contractual arrangements (i.e. the practice would be provided with a list of breaches and the corresponding level of fine that would have been imposed to illustrate the shortfall in standards provided by the practice) and that this could eventually, lead to 'hard fines' where practices do not meet the required standards. We also note the Department's comments in March 2008, that these issues will be considered as part of its development of proposals for future arrangements for bTB testing, after publication of NIAO's report.

On the Departmental 'Review of bTB testing arrangements'

2.44 In October 2005, the Department commissioned consultants to consider existing bTB testing arrangements. The consultants' November 2006 report concluded that the continued use of PVPs was the most appropriate way forward, but made a number of recommendations to enhance the Department's monitoring and control framework. The Department said, in June 2007, that, having received the consultants report, it was consulting with stakeholders on the proposed way forward. Given the difficulties that have been experienced in this area and the importance of PVPs' work to the success of the bTB control and eradication programme, NIAO considered that it was important that the Department completed the consultation process as a matter of urgency.

Part Two: Testing for Bovine TB

2.45 We note the Department's comments that, at an 'informal' meeting in May 2007, the PVP representative bodies strongly opposed the main recommendations of the consultants' Review and would be submitting their own comments on the way forward. While it was the Department's intention, following this, to go to public consultation, we note that it now intends to await the publication of NIAO's report before making any proposals for future arrangements for bTB testing.

Part Three:
Prevention of the Spread of bTB

Part Three: Prevention of the Spread of bTB

Introduction

3.1 As part of a disease control and eradication programme, it is essential to have measures in place to combat the introduction/re-introduction of infection to farms and reduce the likelihood of spread to neighbouring farms. Sources of bTB infection and disease dynamics are not totally clear. The 2002 Policy Review concluded that the nature of farming in Northern Ireland, with small fragmented farms, strong dependency on rented pasture and a high level of animal movement between and within herds, facilitates bTB spread.

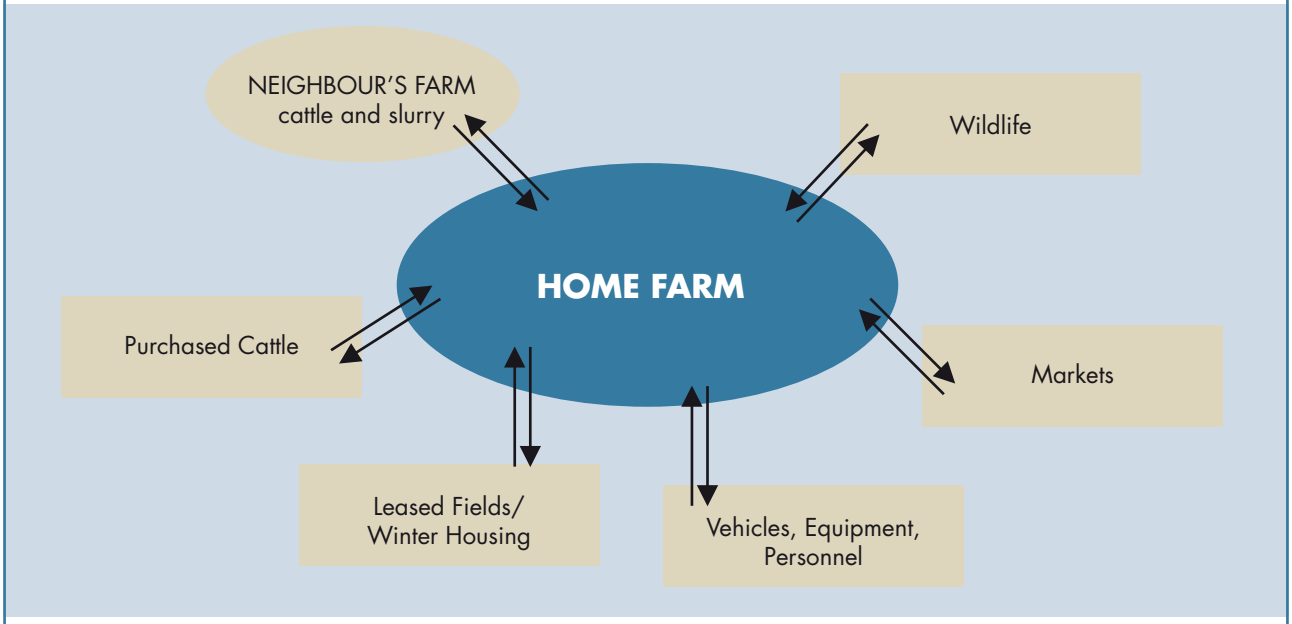
3.2 This section of our report:

- examines disease transmission routes (paragraphs 3.3-3.20)
- outlines the contribution of research to the control of bTB (3.21-3.23).

Disease Transmission Routes

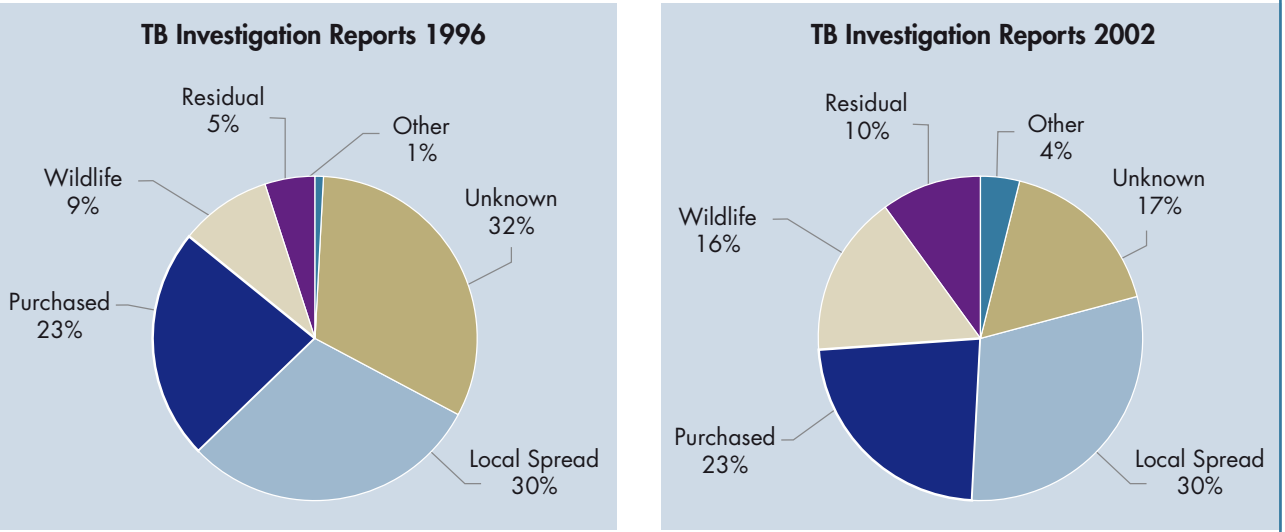
3.3 In order to control the spread of disease, it is important to identify the ways in which the disease is spread. Potential transmission routes are shown below (**Figure 3.1**).

Figure 3.1: Potential Routes by which bTB may Spread to or from the Farm



Source: DARD

Figure 3.2: Relative Incidence of Transmission Routes in 1996 and 2002



Source: DARD

Notes:
1. It can be difficult to conclusively establish the source of infection and this often involves a subjective judgement.
2. 'Residual' disease is that which remains undetected within the herd, following testing. 'Other' includes livestock markets and illegal movement of cattle.
3. Investigation reports were not completed for 2003 and 2004 (see paragraph 4.17). An analysis for 2005 was not available during our fieldwork.

3.4 A comparison of the relative incidence of the different routes by which bTB has been transmitted into herds, based on Departmental analyses in 1996 and 2002, is shown at **Figure 3.2**. While local spread (around 30% of cases) and purchased infection (23%) have remained constant, cases attributed to wildlife and residual infection have both doubled over the 10-year period. This increase is largely matched by a corresponding fall in the 'unknown' category, from 32% to 17%.

Local Spread

3.5 Local spread refers to bTB infection being passed between herds in close proximity. One method of minimising the risk of local spread is by ensuring the shortest time between diagnosis of the disease and removal of the infected animals. In May 2002, an Independent Husbandry Panel[6] noted that *"there are many precautionary husbandry measures that herdkeepers can take to reduce the risk of bTB and other infectious diseases in cattle"*, with little cost to the farmer.

Boundary fencing

3.6 The 2002 Policy Review highlighted that:

- inadequate boundary fencing was a major impediment to successful control and eradication of bTB

6 DEFRA commissioned a Review of Husbandry (farming practice) by an independent panel in 2002.

Part Three: Prevention of the Spread of bTB

- 79% of fences in Northern Ireland did not prevent nose-to-nose contact between herds

- in the past, when mapping breakdown herds, the Department had provided advice to farmers on how to prevent contact across boundaries and this had helped curtail the spread of bTB.

The 2002 Policy Review recommended the introduction and enforcement of 'nose-proof fencing' i.e. double fencing at farm boundaries with a 3-metre gap between neighbouring livestock. Benefits envisaged included a reduction in the number of breakdowns caused by lateral spread between cattle and savings in associated testing and compensation costs, as well as reductions in stress and costs to herdkeepers.

3.7 In May 2004, the Department launched its 'Biosecurity Code' to heighten awareness of the need for improved biosecurity measures on farms in order to minimise the risk of introducing disease at farm level. The Code specifies that 'nose-proof' fencing should be achieved with at least a 3-metre gap between neighbouring livestock. Since October 2004[7], herdkeepers have been statutorily required to maintain fences dividing their holding from adjoining land so as to prevent contact between their herd and animals on adjoining land. Features of good biosecurity are shown in **Appendix**

7 Under the Tuberculosis Control (Amendment) Order (Northern Ireland) 2004.

8. Primary powers to draw-up new, disease-specific biosecurity codes and make compliance with them compulsory are proposed for introduction in Spring 2009, subject to the Assembly timetable. Further, secondary legislation will also be required.

3.8 We asked the Department for an update of the percentage of fencing in Northern Ireland which prevents nose-to-nose contact between herds. It said that it would not be cost-effective to collect this information.

Life-Long Learning Programme

3.9 The 2002 Policy Review also recommended that a life-long learning programme for farmers be introduced. The programme would promote a pro-active response to disease control and should include recognition of the early signs of clinical disease and development of individual farm biosecurity plans. A pilot module was undertaken in Autumn 2003 and rolled out in late 2004. To March 2006, a total of 204 herdkeepers (against a target of 230) had participated in the programme. We note the Department's comments that by March 2008 a further 685 herdkeepers had participated in the scheme, bringing the total number at that point to 889. Overall, there are some 25,000 herdkeepers in Northern Ireland.

Livestock Dealers

3.10 Under the EU Directive, dealers engaging in intra-Community trade in animals and animal products must be approved and registered and must observe the regulatory requirements relating to bTB, animal identification and movement. However, statutory authority to enforce the requirement was not put in place in Northern Ireland until April 2005[8]. The role played by dealers in the 2001 Foot and Mouth outbreak emphasises the importance of control in this area. The 2002 Policy Review recommended that the Department consider developing a dealer system along the lines of that introduced in 2001 in the Republic of Ireland (which covers dealer registration both for intra-Community trade and internal trade within the Republic of Ireland). We understand that additional legislation, to encompass those dealers engaged in trade solely within Northern Ireland is to be introduced by the Department by Spring 2009.

Purchased Stock

3.11 The Biosecurity Code notes that, *"the single most effective way of spreading animal disease is the movement of infected livestock, which may or may not be exhibiting signs of illness, onto or off the farm"*. In 1995, an internal review noted a significant correlation between the purchase of cattle and the risk of breakdown, yet movement of cattle into breakdown herds was permitted and herdkeepers were compensated, even where introduced animals subsequently became reactors.

3.12 **Figure 3.2** indicates that almost one quarter of bTB breakdowns have been

8 Under the Animals and Animal Products (Import and Export) Regulations (Northern Ireland) 2005.

Part Three: Prevention of the Spread of bTB

caused by purchased infection. Despite this, in 2000, the Department decided there would be little benefit in prohibiting the introduction of purchased cattle into restricted herds because, in its view, few introduced animals subsequently become bTB reactors. In November 2004, the Department did introduce tighter controls over herd tests, including restrictions on the movement of animals where herd tests were overdue - see **Appendix 9**.

Pre-Movement Testing

3.13 Animal movement into and out of herds is high and, as a result, the risk of introducing a bTB-infected animal into a herd is high[9] (estimates are that at least 10% of breakdowns involve movement of undetected infected cattle). In 1995, the Department considered introducing pre-movement testing for herds which had a confirmed bTB breakdown within the previous three years. The benefits envisaged were a reduction in the spread of infection and, as the costs were to be borne by the industry, a financial incentive to owners to keep their herds disease-free. However, the bTB pre-movement test was not introduced. The Department told us that the failure to introduce pre-movement testing at that time (in 1995) was due to the likely cost to the industry and its view that it may have limited impact on reducing disease levels.

3.14 In 2000, an EU bTB taskforce recommended compulsory pre-movement testing for animals over one year old, particularly for breeding animals, in Northern Ireland and the Republic of Ireland[10]. In 2002, the Policy Review recommended that, *"from a purely financial point of view, pre-movement testing, using the* [skin test] *would be worth doing"*. The Policy Review estimated that the introduction of pre-movement testing would yield net savings of £0.5 million per annum to the Department.

3.15 In 2004, the EU reiterated its recommendation on introducing pre-movement testing and advised that the Department should evaluate data to determine the impact of introducing a pre-movement testing regime. In 2005, the Department undertook a project scoping exercise on bTB pre-movement testing. Further work to assess the costs and benefits was carried out in the latter part of 2006. At that time, the Department was considering whether to introduce a requirement for bTB pre-movement testing. It also said that, in the absence of pre-movement testing, it was considering introducing a requirement for post-movement testing of any animal that missed the annual herd test in its former herd. In March 2008, the Department told us that pre-movement testing is primarily to test for disease in situations where animals have not been tested for some time. As all herds are required to undergo annual bTB testing, it concluded that the introduction of pre-movement testing for all categories of animal would not be as beneficial in Northern Ireland as in areas that do not carry out annual testing. In order to close a gap in the testing of individual animals which may have missed annual herd

9 A Departmental review in 2005 noted that some 270,000 animals (17% of the Northern Ireland herd) moved between herds in 2004.

10 Under the Directive, pre-movement testing is a requirement for Brucellosis but not bTB testing.

tests - for example, because they have moved between herds - the Department has, from July 2008, adjusted its testing programme to ensure that any animals that have not been tested in the previous 15 months are put under restriction until tested.

Wildlife

3.16 A reservoir of bTB infection in wildlife – particularly badgers - is also thought to be a factor in bTB transmission. While there is support for this view, quantitative scientific evidence is limited. An Independent Animal Husbandry Report (paragraph 3.5) and the Biosecurity Code both set out a number of precautionary measures that herdkeepers can put in place to reduce the risk of contact and potential for spread of bTB between cattle and wildlife. This includes discouraging wildlife access to food and farm buildings, fencing-off badger setts and raising food troughs, drinkers and salt licks. While the effect of such measures is unknown, they are perceived to be sensible precautions which can be applied at little extra cost to the farmer.

3.17 The 2002 Policy Review recommended a badger-culling trial. The Department set up a 'Badger Stakeholder Group' in April 2004 to examine the results of two major culling trials, in the Republic of Ireland and Great Britain, and consider the need for a badger management strategy for Northern Ireland.

3.18 The Republic of Ireland 'Four Areas Trial' ran from 1997 to 2002. While the results, which were made available in 2005, provided evidence that badgers do play a role in increasing bTB in cattle, the trial result interpretation and conclusions were questioned – trial sites had not been randomly selected (which may have introduced bias), there had been no control sites (with no culling) for comparison and there were significant physical barriers to badger immigration at the trial sites. The main conclusion of the trial was that the elimination of badgers over a substantial area, maintained over time, is likely to have a beneficial effect on the incidence of bTB in cattle. However, although feasible, the widespread removal of badgers was not considered a viable strategy for long-term control of bTB.

3.19 The 10-year 'Randomised Badger Culling Trial' in GB reported in June 2007, concluding that:

"although badgers contribute significantly to the cattle disease in some parts of the country, no practicable method of badger culling can reduce the incidence of cattle bTB to any meaningful extent, and several culling approaches may make matters worse…rigidly applied and targeted

Part Three: Prevention of the Spread of bTB

control measures at cattle can reverse the rising incidence of disease and halt its geographic spread".

The Department told us that, in July 2008, DEFRA announced that its policy will be not to issue any licences to farmers to cull badgers for bTB control, although it remains open to the possibility of revisiting this policy under exceptional circumstances, or if new scientific evidence were to become available. It is, instead, putting effort into strengthening its research programme to develop cattle and badger vaccines and maintaining cattle controls. As part of this increased effort, it will be increasing its spending on vaccines to strengthen the chances of successfully developing them. It is also providing additional funding to set up and run a practical project to prepare for deploying vaccines in the future.

3.20 The Department told us that the Badger Stakeholder Group reviewed all relevant information available on badgers and bTB and considered the potential need for a badger management strategy to help reduce bTB levels in NI. The report of the Badger Stakeholder Group was published on the Department's website in April 2008. The report summarises the information the Group assessed and proposes a range of actions, which are aimed at gathering information to better inform future decisions relating to badgers and the control of bTB. A badger population survey was undertaken by the Department to establish information on badger numbers and their distribution in Northern Ireland. The survey report was published (on the Department's website) in September 2008. Other proposed actions, such as a proposal for a survey of the prevalence of TB in badgers, are in the planning stages. It intends that this will inform a cost-benefit assessment, which will help to establish if intervention in badger populations (removal or vaccination) is likely to achieve a cost-effective reduction in bTB in Northern Ireland. The Department also pointed out that the bTB situation in Northern Ireland is different from that currently faced in GB or the RoI, in that the trend in disease levels here, from 2003, has been downwards.

Research into bTB

3.21 Research and Development (R&D) into bTB aims to provide new information and alternative or improved technologies to assist the Department achieve its objective to eradicate bTB. It is currently undertaken by the Department's Agri-Food and Biosciences Institute and covers the potential for improved diagnosis, examination of bTB transmission routes and development of a vaccine.

3.22 The 2002 Policy Review process exposed weaknesses in the Department's bTB research programme, including:

- the relative level of bTB research funding in Northern Ireland was limited in comparison with GB – while the annual level of bTB compensation in GB was only 25% higher than in Northern Ireland, its annual research

spend on the disease was some ten times greater, by value

- the results of the major bTB blood test research project completed in 1995 had not been published and the required post-project evaluation – to measure success against objectives and identify and record all relevant lessons - had not been carried out.

3.23 Research into vaccination for bTB is largely carried out by DEFRA and is currently aimed at developing two separate vaccines for cattle and badgers. At present, there is no certainty that a 'field effective' bTB vaccine of either animal can be produced. In addition, there is a concern that vaccinating cattle may have an adverse effect on cattle exports. The Department told us that its research and development contributions have been integral to the evaluation of vaccines in Great Britain and the Republic of Ireland. It also said that it is currently collaborating with a research institute in Denmark to develop a vaccine that will not elicit a skin test-positive reaction (which may avoid an adverse effect on cattle exports).

NIAO Conclusions and Recommendations

3.24 The success of a disease control and eradication programme is heavily dependent on the elimination of spread of the disease. While significant progress has been made with bTB in recent years - since peak levels in 2002, the herd incidence has been reduced by nearly 50% - disease rates are still higher than in the mid-1990s (although the general disease trend at present is decreasing, whereas it was rising during the 1990s). While the Department has taken steps to identify the likely sources of bTB transmission and introduced a number of counter-measures to improve farming practices, such as its 2004 Biosecurity Code and provision of advice to farmers, our overall view is that it has been slow to act. Also, it is clear that much remains to be done.

On the local spread of bTB

3.25 For many years, inadequate boundary fencing has been a major impediment to successful control and eradication of bTB. Indeed, the 2002 Policy Review found that 79% of fences in Northern Ireland did not prevent nose-to-nose contact between herds. We note that the Biosecurity Code recommends a 3-metre gap between neighbouring livestock. Proposed new legislation, to be introduced by Spring 2009 (subject to the Assembly timetable), will provide power to make compliance with new, disease-specific biosecurity codes mandatory. With the necessary authority shortly to be in place, the Department must take steps to drive up the level of compliance with biosecurity measures, in as short a period of time as possible. It must also ensure that it effectively monitors and, where necessary, enforces compliance.

Part Three: Prevention of the Spread of bTB

3.26 The life-long learning programme for farmers, which was piloted in 2003 and rolled out in 2004, promotes a proactive response to disease control and the development of individual farm biosecurity plans. With only 204 out of some 25,000 herdkeepers in Northern Ireland having participated by March 2006 (against a target of 230), the Department needs to consider ways in which it can markedly increase the level of uptake each year. We note the Department's comments that by March 2008 a further 685 herdkeepers had participated in the scheme, bringing the total number at that point to 889.

3.27 The Department was slow to comply with the EU Directive which requires that livestock dealers involved in intra-Community trade are approved and registered - statutory authority to enforce the requirement was not put in place in Northern Ireland until April 2005. Bearing in mind the role that dealers played in the Foot and Mouth outbreak in 2001, control in this area is important. We note that legislation to cover internal trade within Northern Ireland, similar to that introduced in the Republic of Ireland in 2001, is to be brought in by the Department by Spring 2009, subject to the Assembly timetable.

On purchased stock

3.28 The Department's Biosecurity Code notes that the single most effective way of spreading animal disease is the movement of infected stock. Analysis by the Department shows that almost one quarter of bTB breakdowns have been caused by purchased infection. In an effort to address the risk, an EU taskforce, in 2000, recommended compulsory pre-movement testing for animals over one year old. Subsequently, in its 2002 Policy Review, the Department estimated that bTB pre-movement testing would yield in-house net savings of £0.5 million per year.

3.29 Despite this, the Department had yet to make a decision on whether or not to introduce bTB pre-movement testing. In 2005 and again in late 2006, the Department undertook work to assess the costs and benefits. Given the risks of infection posed by cattle movement and the costs associated with infection, our view was that this is a matter that required urgent attention.

3.30 We note the Department's comments that, in June 2007, it decided *not* to introduce bTB pre-movement testing as all herds in Northern Ireland are subject to an annual test (unlike GB where there can be up to four years between tests). However, from Summer 2008, single animals that have missed their test (i.e. moved between herds), are now restricted after 15 months, until they are tested.

On wildlife causing the spread of bTB

3.31 While a reservoir of bTB infection in wildlife, particularly badgers, is thought to be a factor in bTB transmission, quantitative scientific evidence is limited. The Department set up a 'Badger

Stakeholder Group' in April 2004 to examine the results of two major culling trials, in the Republic of Ireland and Great Britain, and consider the need for a badger management strategy for Northern Ireland. The Republic's trial concluded that, although feasible, the widespread removal of badgers was not considered a viable strategy for long-term control of bTB. The 10-year GB trial concluded that no practical method of badger culling can reduce the incidence of bTB to any meaningful extent, indeed several culling approaches may make matters worse – however, rigidly applied and targeted control measures can reverse the rising incidence of disease.

On research into bTB

3.32 The Department's 2002 Policy Review highlighted a number of weaknesses in its research programme, in particular that:

- the relative level of funding on bTB research in Northern Ireland was limited in comparison with GB
- the results of a major blood test research project, completed in 1995, had not been published and no post-completion evaluation had been completed.

3.33 Research into bTB offers the prospect of improved control of the disease and its eventual eradication. It is important, therefore, that the Department:

- devotes a level of resources to the programme, commensurate with the scale of the problem in Northern Ireland
- ensures that the results of individual research projects are written-up promptly and published
- in line with DFP guidance, carries out post-project evaluations to assess relative success and record all relevant lessons.

3.34 We note the Department's comments that it intended to bring forward, by the end of 2008 (now early 2009), an R&D strategy linking its research programme to its strategic objectives. A Departmental Scientific Adviser was to be appointed by early Autumn 2008, but is now expected to be in post in February 2009.

Part Four:
EU Matters

Part Four: EU Matters

Introduction

4.1 This part of the report examines the Department's:

- non-compliance with EU legislation (paragraphs 4.2-4.23)
- limited success in securing monies from the EU Veterinary Fund (4.24-4.25).

Compliance with EU Legislation

4.2 The EU Directive (paragraph 1.5) sets out bTB minimum control measures for each Member State. Compliance is required in order to be permitted to export cattle and beef products to other EU States. The Department has twice reviewed its compliance, first in 1999 following amendments to the Directive and, subsequently, during the 2002 Policy Review. Both reviews identified a number of areas of under-implementation and non-compliance. Further areas were subsequently identified by the EU Food and Veterinary Office (EU FVO) in 2004 and by NIAO. The range of issues identified included:

- Private Veterinary Practices' conflicts of interest
- slippage on Annual Herd Tests and movement restrictions
- inadequate isolation of infected and inconclusive animals
- failure to slaughter animals yielding two consecutive inconclusive tests
- delays in the removal of reactors to slaughter
- inadequate control over disease spread - breakdown visits to farms and cleansing and disinfection of premises.

Failure to comply with the Directive may lead to infringement proceedings and, in turn, financial penalties.

Private Veterinary Practitioners' Conflicts of Interest

4.3 The EU Directive (64/432) requires that PVPs should have *"no financial interest or family links with the owner of, or person responsible for, the holding"*. In Northern Ireland, the practice is that PVPs carry out bTB testing on their own clients' animals. This may create a conflict of interest, raises concerns over their independence and appears to run contrary to the terms of the EU Directive.

4.4 We note the Department's comments that, under the current PVP contract, PVPs must:

- not carry out tests on animals in which they have a financial interest or on animals belonging to a close relative, and
- are obligated to declare their interest in testing animals belonging to someone within their own practice.

The Department believes that the procedures currently in place are adequate control measures. However, it is also considering the way forward on its 'Review of bTB testing arrangements' (see paragraph 2.31), which proposes introducing a select list of PVPs to test non-client farms. In this regard, we note that the view of the Association of Veterinary Surgeons Practising in NI is that PVPs should continue to test their own clients' farms.

Annual Herd Testing

4.5 Under the EU Directive, all herds in Northern Ireland are required to undergo a routine Annual Herd Test. The Department has not always managed to meet this requirement. In the period from 1999 to 2004, the percentage of herds receiving a test at least once every 12 months ranged between 73% (2001) and 97% (2004). In May 2004, the EU FVO reported the results of its November 2003 visit. It referred to *"significant delays in meeting test deadlines* [in November 2003] *with only 47% of the annual routine herd testing completed within the 12 months and some 16% still not completed within 14 months"*. The Department told us that the numbers of overdue herd tests have fallen significantly since the introduction of tighter restrictions in November 2004. While, in October 2003, the number of overdue herd tests was 3,971, this had dropped to 1,500 in October 2004, to 116 in October 2005 and to 91 in October 2006.

4.6 Problems also existed with 'restricted' and 'at risk' herd testing. For example, in August 2004 there were 290 'restricted' and 530 'at risk' herd tests which were more than one month overdue. 'Restricted' and 'at risk' tests show a much higher 'reactor yield per test' than annual herd tests. Again, with the introduction of a tighter restriction on overdue tests, the situation has improved – at December 2005, the number of herd tests overdue for more than one month had reduced to 26 'restricted' and 32 'at risk'.

4.7 In its 2004 report, the EU FVO noted that, where an annual herd test was overdue, the Department permitted the movement of animals out of that herd for up to three months after the due date and also allowed movement into such herds without any restriction. This was contrary to the EU Directive. Also in 2004, the EU taskforce on bTB questioned the Department's practice of allowing the movement to slaughter of animals which had not been subject to a bTB test in the previous 12 months. Since November 2004, except under specific exemption, no movements are allowed out of herds, which are over one week past their due date for testing, to other herds or markets. In herds more than one month overdue, animals are not allowed to go directly to slaughter. The changes to movement restrictions are shown in **Appendix 9**.

Overdue Tests on Individual Animals

4.8 In October 2004, we asked the Department to provide data on the number of animals which had not been

Part Four: EU Matters

tested within the previous 12-month period. The figures for 12 months were not available but the Department told us that around 8,500 (0.5%) had not been tested in 15 months, or longer, including some 3,800 which had not been presented in the previous three years. The Department introduced tighter restrictions on overdue annual herd tests in November 2004. However, a subsequent update of the position, at September 2005, showed that the situation had slipped, with an estimated 13,000 (0.77%) animals not having received a skin test within the previous 15 months (the 12-month figure at this stage was just over 22,600). The Department told us that, at April 2008, the number of individual animals in this category currently stands at 9,500. We note the Department's adjustment to its testing programme (paragraph 3.15) that, since Summer 2008, the movement of animals which have not been tested for 15 months or more is restricted.

Isolation of Infected (Reactor) and Inconclusive Animals

4.9 The EU Directive requires that infected and inconclusive animals are isolated from the herd, either until removed for slaughter or the disease status of the suspect animal is confirmed (through further bTB testing). The 2004 EU FVO report noted that the isolation of reactors and inconclusive animals was inadequate and that instructions were not clear. NIAO itself noted, while attending a skin test that, contrary to the EU Directive, an animal which gave an inconclusive test result was not immediately isolated from the herd. We note the Department's comments that isolation checks on singleton reactors and inconclusives commenced in May 2007 and will be reviewed in due course.

Action on Inconclusive Animals

4.10 In 1999, in an amendment to the EU Directive, inconclusive animals (where the bTB test result is not decisive) were required to undergo one re-test (42 days after the original test), rather than two re-tests as previously required. If the outcome of the re-test remained inconclusive, then the animal was to be treated as a reactor and slaughtered. The Department's current policy, however, still allows two re-tests of an inconclusive animal; in effect, this means that a suspect animal can stay on the farm for a further 42 days – that is, 84 days in all[11].

4.11 Although aware of the EU amendment, the Department had not complied with it because, in its view, based on the findings of a 1994 study, while *"there is a clear veterinary benefit to the removal of inconclusive reactors after the first re-test"*, the benefit of identifying disease earlier is outweighed by the cost associated with the removal of additional animals, where disease has not been confirmed. The Department estimated that compliance with the Directive would cost an additional £2.8 million each year (based on an additional 2,000 animals being slaughtered annually, following the first re-test).

11 This inconclusive policy is common across the UK. The RoI has implemented the amendment to the Directive on inconclusives.

4.12 The 2002 Policy Review recommended that the Department comply with the EU Directive on inconclusives. The 2005 EU FVO report identified that follow-up tests on inconclusives was an issue which should be addressed. In August 2005, the Department updated its 1994 study. It estimated that compliance with the Directive would cost an additional £1.1 million each year but, notwithstanding, recommended that *"based on the roughly three times increased risk at both herd and animal level … the policy be changed."*

4.13 In 2006, the Department reviewed the options for an inconclusive removal policy. The review considered what risk-based options might be applied if it were decided not to adopt the (EU) policy of removing all second-time inconclusives. The Department told us that, it had concluded, at that time, that, the work had not demonstrated that the benefits of implementing a more rigorous approach outweighed the costs in financial terms.

Removal of bTB Reactors

4.14 EU regulations require that bTB reactors must be slaughtered within 30 days. In 2001, the average removal time of reactor cattle to slaughter was 35 days. The Department examined the reasons for the failure to meet the target. The main reasons identified were:

- delays by PVPs in forwarding test results
- the time taken to value animals before slaughter (up to 45 days)
- the time taken for hauliers to remove the reactors to the slaughterhouse.

4.15 The Department recognised that better management could deliver improvements to the system and has taken steps to address the delays at the various stages of the removal process. By 2005, the average number of days had been reduced to 20, although 13% of animals (1,376) still exceeded the EU target. By October 2007, only 5% of animals exceeded the 30-day EU target. As an indication of its commitment to disease control, the Department has, since 2001, set itself a target of 15 days for the removal of reactors. In 2005, some 3,600 (34%) of reactors exceeded the 15-day target; by the first half of 2008, this had fallen to 15%.

Veterinary Officer Visits to Breakdown Farms

4.16 Following a new bTB breakdown, the EU Directive requires an investigation report to be prepared. Under Departmental guidelines, Veterinary Officers should visit the herdkeeper's farm, within two working days, to:

- communicate the procedures and requirements to be followed after a breakdown
- collect data from the herdkeeper to assist management of the outbreak including the history, groupings and location of reactor cattle
- provide public health advice.

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In addition, they should:

- ensure the farm is mapped in relation to its neighbours within two weeks
- investigate the likely source of disease infection. The investigation report must be completed and entered on the bTB investigation database within four months of the breakdown.

4.17 In 2002, the year following the FMD outbreak, of 3,163 investigation reports due, only 692 (22%) were completed as required; 434 (14%) had been started but not completed and 2,037 (64%) had not been started. From 2003, as a result of resource constraints, Veterinary Officer visits to herdkeepers were replaced with a telephone interview and mapping of breakdown herds was not carried out. In 2005, completion of investigation reports was resumed and, the Department has told us that, of the 2,617 investigation reports due, 2,125 (some 80%) were completed.

Under-Utilisation of Veterinary Service Resources

4.18 In December 2000, the Department noted that a lack of resources and an allocation of priority elsewhere would mean under-implementation of the July 1999 revisions to the EU Directive, which would result in increased compensation costs and higher fees to PVPs, as well as a greater risk to public health. In 2000 and 2002, Veterinary Service experienced difficulty in the timely recruitment of staff. It considered that the issue was not just one of financial resource, but hinged more on the ability to recruit and retain Veterinary Officers. This was partly because of the lengthy delays between recruitment and job offers due to security requirements and partly because pay and conditions were less attractive in some situations to similar posts in GB and RoI.

4.19 The 2002 Policy Review recommended that a Human Resource Plan for the bTB programme be achieved at the earliest possible date. However, a draft Plan, to address those matters highlighted in the Policy Review, was not prepared until August 2004. We note that, since then, the Department has appointed a number of new bTB Testing Officers and Veterinary Officers.

4.20 In November 2002, the Department commissioned an independent panel to carry out a strategic review of the Veterinary Service. The panel's November 2003 report concluded that the Veterinary Service was an under-utilised asset, suffering from a lack of management focus and not achieving its full potential. It recommended that the Service place greater emphasis on addressing customer needs and measuring outcomes.

4.21 The Department informed us that, since the Veterinary Service Review, it has improved the provision of management information and governance arrangements, succeeded in appointing Veterinary Officers to the bTB programme and is continuing to work to improve efficiency and effectiveness through the use of IT, stakeholder involvement, monitoring of performance and review of work practices

to make best use of professional and technical skills.

Cleansing and Disinfection

4.22 Effective cleansing and disinfecting of premises, equipment and vehicles can help to prevent the spread of disease. Under the EU Directive, the trade status of a herd, following a bTB breakdown, remains withdrawn until cleansing and disinfecting of the premises is completed. Prior to 2002, the Department physically inspected premises to verify that cleansing and disinfecting had been carried out. We noted the comments of a Senior Veterinary Officer, in 2001, that *"At the farm yard level.... cleansing and disinfecting is an essential element of a disease control programme. In practice,* [it] *is seen as less important than other aspects of animal husbandry. Little training is given to personnel and there is poor understanding of the mechanism of disinfection, and of factors which affect the disinfection process".*

4.23 Despite this, from 2002, due to resource constraints (which the Department said stemmed from increased disease levels post-Foot and Mouth), its physical inspections were replaced with self-certification by herdkeepers. Following recruitment of additional Animal Health and Welfare Inspectors in 2004 and 2005, inspections recommenced rising from 699 in 2004 to 1,940 in 2005 and, allowing for the downturn in disease trend, 1,349 in 2006.

The EU Veterinary Fund

4.24 In response to a recommendation in the 1994 PAC report on Animal Health Measures, the Department has sought annual financial assistance from the EC Veterinary Fund[12] which provides financial contributions to Member States towards the costs of disease eradication. However, the Department's success in accessing EU funds has been limited. We found that no funding was secured

12 The EU co-finances animal health eradication and control programmes in Member States, through the Veterinary Fund. Claims must be submitted in the year prior to the Fund year in question e.g. by June 2004 for 2005.

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in five of the years between 2000 and 2008 (**Figure 4.1**). No funding was received in respect of 2003, due to the late submission of the claim (this also affected the 2003 Brucellosis claim). The 2005 claim was rejected because the EU considered that, while most measures were under consideration, the Department's July 2004 Action Plan had shown *"no commitment to implement"* recommendations from the 2003 EU FVO mission and the April 2004 EU bTB taskforce meeting, nor the EU legislation on inconclusives (paragraphs 4.10 to 4.13 above). The Department did not submit claims for 2006, 2007 or 2008.

4.25 It is difficult to quantify the level of funding which would have been secured from the Fund in each of the years in question. However, we estimate that the loss by the Department, for the 2003 and 2005 bTB claims is some £2.85 million. (In addition, the Department's 2003 Brucellosis claim would have brought in some 1.2 million euro – around £0.8 million). The Department commented that it *"receives no money directly from the EU Veterinary Fund. All funding approved goes into the Consolidated Fund and, whilst it would assist the Exchequer, does not directly benefit the Department"*.

Figure 4.1: EU Funding in respect of Bovine TB Programme Costs from 2000 to 2008

Year	Assistance from the Fund (euro)
2000	65,000
2001	65,000
2002	105,000
2003	Nil
2004	2,000,000
2005	Nil
2006	Nil
2007	Nil
2008	Nil
Total	2,235,000*

Source: DARD

Note: * The total received equates to some £1.49 million.

NIAO Conclusions and Recommendations

4.26 Our review identified a number of concerns in relation to the Department's level of compliance with the EU Directive. These were:

On compliance with EU legislation

- allowing PVPs to test their own clients' animals – this may create a conflict of interest and appears to run contrary to the Directive. The Department believes that current procedures are adequate, pending consideration of its 2006 'Review of bTB testing arrangements'

- substantial numbers of Annual Herd Tests were not being completed within the stipulated 12-month timeframe – for example, in October 2003, the number of outstanding herd tests was 3,971. Following the introduction of tighter restrictions on overdue herd tests in November 2004, the number had dropped to 91 by October 2006. NIAO notes, however, that a number of *individual* animals may miss their annual herd test because, for example, they have moved between herds (at April 2008, the number of overdue animals stood at 9,500)

- until November 2004, permitting:

  - the movement of animals out of a herd, where the annual herd test was up to 3 months past its due date

  - movement into herds without restriction

  - the movement, to slaughter, of animals which had not been subject to annual testing within the previous 12 months.

  We note however that, since November 2004 (except under exemption) no movements are allowed into, or out of, herds which are more than one month past their due date for testing

- the EU FVO 2004 report which found that isolation of reactors and inconclusive animals was inadequate and that instructions were not clear. The Department informed us that isolation checks on singleton reactors and inconclusives commenced in May 2007 and will be reviewed in due course

- failing to treat as reactors, animals which remained inconclusive after re-testing and, thereby, allowing such animals to remain on the farm for at least another 42 days. We

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note the Department's comments that farmers have always had the option to voluntarily dispose of animals that have tested twice as inconclusive. These animals may be voluntarily slaughtered rather than be taken as reactors

- not all reactor animals were moved from farms to slaughter within the 30-day target – for example, in 2005, some 13% (1,370) exceeded the target period, although by October 2007, the level had fallen to some 5% exceeding the target period. We note the Department's comments that, whilst delays in reactor removal will inevitably occur, it is continuing to monitor the process and will endeavour to keep any delays to a minimum

- discontinuation, between 2003 and 2005, of Veterinary Officer visits to breakdown farms and mapping of breakdown herds

- widespread failure to complete breakdown investigation reports

- discontinuation, between 2002 and 2004, of physical inspections of breakdown farms to verify that cleansing and disinfecting had been carried out, and

- lack of resources, in the absence of a Human Resources Plan until 2004, coupled with evidence that the Veterinary Service was an under-utilised asset, suffering from a lack of management focus, having a poor understanding of the financial planning process and not achieving its full potential resulted in under-implementation of the EU Directive. We note the Department's comments that, since 2003, steps have been taken to improve the efficiency and effectiveness of the Veterinary Service, including the appointment of Veterinary Officers to the bTB programme.

The overall effect of these shortcomings was that they contributed to increased levels of bTB in Northern Ireland. We note, however, that a number of these areas have now been addressed.

4.27 In our view, the Department should have enforced compliance with the minimum requirements specified in the EU Directive. In the absence of compliance, there is always a risk that restrictions may be applied on the export of cattle and beef products. In addition, the EU may initiate infringement proceedings, ultimately leading to financial penalties. We note the Department's comments that the remaining areas of non-compliance with the EU Directive relate to the removal of inconclusive animals after the first re-test, because its assessment has been that the benefits would not outweigh the costs in financial terms.

On claims against the EU Veterinary Fund

4.28 We are also concerned about the limited extent to which the Department has availed of the financial support available from the EU Veterinary Fund, including:

- its failure to secure any monies to offset its bTB programme costs in five of the years between 2000 and 2008, due to:
  - late submission of the 2003 claim
  - a lack of commitment to implement EU recommendations
  - not submitting claims for 2006, 2007 and 2008.

We estimate that the consequent loss to public funds is likely to be substantially in excess of £2.85 million and that, without compliance with the Directive, further financial support from the Fund is unlikely. In our view, the Department should seek to maximise support from the Fund. We note the Department's comments that it receives no money directly from the EU Veterinary Fund, all funding approved goes into the Consolidated Fund and, whilst this assists the Exchequer, it does not directly benefit the Department.

Part Five:
Compensation, Enforcement and Tackling Fraud

Part Five: Compensation, Enforcement and Tackling Fraud

5.1 This section of the report looks at:

- compensation, including changes in valuation policy (paragraphs 5.2-5.15)
- the Department's enforcement activity and tackling of fraud (5.16-5.27).

Compensation Costs

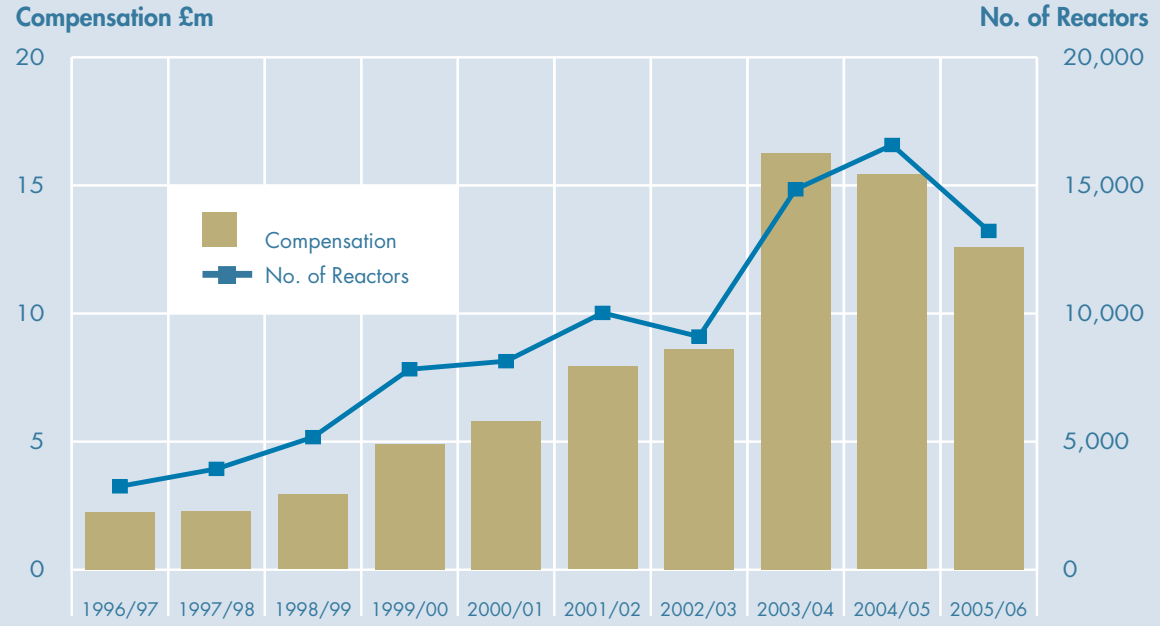
5.2 Herdowners receive compensation at full market value for animals testing positive. Market value is defined as the price which might reasonably have been obtained for an animal, had it been free from disease. Annual levels of compensation have grown steadily since the mid-1990s and, although peaking in 2002-03, remain very substantial. The total cost of bTB compensation in the ten years to March 2006 amounted to £86 million.

The Valuation of Cattle for Slaughter

Change in Policy to Full Market Value

5.3 Prior to 1998, compensation for animals testing bTB positive was 75% of market value, or 75% of a calculated market price, where this was lower. In 1998,

Figure 5.1: Annual Cost of Compensation for 'Reactor' Cattle, 1995-96 to 2005-06



Source: DARD

compensation of 100% of market value was introduced. Previously, the Department had resisted calls for full compensation, on the grounds that the herdkeeper should bear some of the cost of an outbreak. With no ceiling on individual payments, the overall cost of compensation rose significantly. The decision to increase compensation to 100% of market value mirrored a similar decision in Great Britain, following lobbying from the farming community[13]. The Department told us that, while it had not been consulted prior to the change in Great Britain, it considered that it had no alternative but to follow suit. At that time, however, the incidence of bTB in Northern Ireland was rising and significantly greater than in Great Britain.

5.4 The higher compensation rate raised concerns within the Department, regarding the increased potential for fraudulent activity. In August 1998, a Senior Veterinary Officer noted that the 75% compensation rate:

- acted as a ceiling on compensation and made it unprofitable to have a reactor
- helped to deter individuals who, during periods of depressed cattle prices, saw a gain in creating reactors through interference with the bTB test.

The Officer considered that the introduction of 100% compensation would make a reactor more desirable to have and increase the temptation to 'invent' or import reactors.

5.5 Coinciding with the introduction of 100% compensation in 1998, the annual number of reactors rose, from some 5,200 in 1997-98 to around 8,100 in 1999-00. The Department estimated in 2000 that, had compensation remained at 75%, compensation expenditure in 1999-00 would have been £1.6 million lower. We estimate that, in the seven years to March 2006, the increase in the rate of compensation cost the Department at least an additional £19.6 million.

Rationalisation of Compensation Arrangements

5.6 Following the 2002 bTB and Brucellosis Policy Reviews, the Department introduced changes, in October 2004, to its valuation appeals process (see paragraph 5.12). It also considered rationalising its compensation arrangements, to include:

- powers to deduct compensation (for example, where a disease outbreak was found to have been due to poor biosecurity measures within a herd)
- the introduction of a compensation cap – that is, a maximum payment threshold.

The Department said that powers to make compliance with specific biosecurity codes compulsory and to withhold compensation where a disease outbreak is found to have been due to non-compliance, are proposed for introduction in new primary legislation in Spring 2009, subject to the Assembly timetable. Following that, further, secondary

13 In 1998, GB increased compensation to 100% as the change in culling policy, arising from the introduction of the major badger culling trial (paragraph 3.19), reduced the ability of farmers, outside the culling trial test areas, to control the perceived risk of bTB spread through badgers.

Part Five: Compensation, Enforcement and Tackling Fraud

legislation will be necessary, in 2010, to implement new biosecurity codes.

5.7 We also note that the Department's current compensation arrangements offer a range of compensation rates, varying across different groups of animals. Even within the bovine grouping, rates vary, with compensation for Brucellosis remaining at 75% of market value for well over a decade, compared with bTB compensation standing at 100% since 1998. Also, no differentiation is made in the levels of compensation payable, between cases where bTB has been confirmed (through laboratory tests or the presence of lesions at slaughter) and cases where, following a skin-test positive reaction, disease is not subsequently confirmed. If, for example, the rate of compensation had been reduced from 100% to 75%, in those 2005-06 cases where bTB was subsequently confirmed, we estimate that compensation totalling some £0.92 million would have been saved.

Valuation Appeals

5.8 Normally, the value of a bTB reactor is agreed between a Departmental inspector (a Livestock Valuation Officer) and the herdowner. Where they fail to agree on a value, an independent valuer is selected from a list of at least three valuers from outside the Department. Prior to October 2004, the independent valuation was binding, on both the Department and the herdowner and was paid for by the Department.

5.9 In its 2002 report[14] on Brucellosis in Northern Ireland, the Assembly Public Accounts Committee commented on the Department's compensation valuation procedures. They expressed a number of concerns about the appeals process, particularly the extent to which valuations on appeal were substantially higher than the original Departmental valuations. The same valuation system applied to bTB cases.

5.10 We looked at the trend in the value of appeal case valuations – that is, cases where herdowners did not accept the Department's valuation and an independent valuer was engaged. **Figure 5.2** shows that, from the mid-1990s to 2001, there was a considerable increase in the number of herdowners seeking independent valuations. It also shows that the average valuation by independent valuers increased to a point (in 2000-01) where it was almost twice that of the Departmental valuations. At the time, the Department noted the possibility *"that* [independent] *valuers are, if not actually colluding with herdowners, at least* [taking] *extraneous factors such as consequential losses into account"*. It also noted that its own valuers had been offering valuations above the perceived market price, in an attempt to reach agreement with the herdowner and avoid independent valuation. Overall, across the eight years shown, independent valuations added a further £0.42 million (68%) to the Department's own compensation valuations.

14 'Brucellosis Outbreak at the Agricultural Research Institute for Northern Ireland', 5th Report of Session 2001-02, NIA 61/01.

Figure 5.2: Comparison of Average Annual Values of DARD Valuations with Independent Valuations in Appeal Cases, 1995-96 to 2003-04

Year	Number of Appeal Valuations (animals)	Value of DARD Valuations (£)	Value of Independent Valuations (£)	Variance %
1995-96	2	2,200	2,492	+ 13
1996-97	8	6,275	7,970	+ 27
1997-98	Figures not available for this year			
1998-99	22	17,050	31,955	+ 87
1999-00	55	132,925	246,925	+ 86
2000-01	41	57,405	111,080	+ 94
2001-02	48	85,940	149,760	+ 74
2002-03	133	165,815	282,130	+ 70
2003-04	122	155,025	214,140	+ 38
Totals	**431**	**622,635**	**1,046,452**	**+ 68**

Source: DARD

Note: During 2004-05, the Appeal system changed – see paragraph 5.6.

5.11 Between 1999 and 2004, the Department raised a number of issues relating to the valuation process:

- *subjectivity of the valuation process:* animal valuation was judgement-based with no standard criteria or methodology in place
- *supervision/quality of valuations:* supervision or quality assurance of in-house valuations did not appear to be undertaken
- *identification and marking of reactors at valuation*: reactor animals to be removed for slaughter were not always correctly identified and were not marked as reactors (by ear punching)
- *impact on reactor removal:* valuation appeals delayed the removal of infected animals, which increased the risk of disease spread and delayed the final determination as to whether there had been fraudulent behaviour (i.e. interference with the test)
- *shortage of Departmental and Independent Valuers:* a shortage of in-house valuers had contributed to a

Part Five: Compensation, Enforcement and Tackling Fraud

backlog in valuations. The Department also noted (in 1999) that valuers' fees had not increased since 1997 and this had contributed to a shortage of independent valuers

- *monitoring of valuers:* lack of valuation expertise among the Department's veterinarians prevented effective monitoring of valuers.

5.12 In October 2004, changes to the valuation system were introduced to address a number of these concerns. Changes included:

- herd-keepers paying for independent valuations
- time limits being set on the valuation process
- the appointment of a Senior Valuation Officer in the Department, to supervise and train Livestock Valuation Officers and monitor all valuations.

In addition, an 'Independent Appeal System' was established, allowing appeals against independent valuations (which, previously, had been automatically binding – paragraph 5.8).

5.13 **Figure 5.3** shows that, under the revised arrangements, fewer cases are being appealed by herdowners. While the annual average values of independent valuations are still markedly higher than Departmental ones, the differential has dropped, compared with the levels of the late 1990s (**Figure 5.2**). The Independent Appeal System has also had an impact. Between April 2004 and March 2006, only 48 animal valuations, involving 15 herdowners, were appealed (compared with 122 cases in 2003-04). Of these, the Department initiated appeals in 26 cases. These followed independent valuations with which the Department did not agree. The Department was successful in 21 of the 25 appeals heard to date (one remains pending) – that is, its original valuations were upheld. The

Figure 5.3: Valuation Cases Taken to the Independent Appeal System, 2004-2005 to 2005-2006

Year	Number of Appeal Valuations (animals)	DARD Valuations £	Independent/ Herdkeeper Valuations[15] £	Variance %	Value determined by the Independent Appeal System £	Variance after Appeal %
2004-05	39	31,770	41,395	+ 30	35,390	+ 11
2005-06	9	10,200	23,300	+ 128	10,700	0
Totals	**48**	**41,970**	**64,695**	**+ 54**	**46,090**	**+ 10**

Source: DARD

15 Where a herdkeeper appeals a DARD valuation, they may either obtain an independent valuation or submit a valuation of their own for the Independent Appeals Panel to consider.

Figure 5.4: Herdowners Receiving in Excess of £200,000 Compensation, 2001-02 to 2003-04

Case Study	Compensation paid £	Number of Claims	Number of Months covered by claims
B	481,940	12	35
C	392,825	19	34
D	263,230	7	31
E	232,570	12	36
F	227,175	10	24
G	220,000	8	30

Source: DARD

remaining 22 appeal cases were taken by herdowners, of which 2 of 15 were successful (7 cases remain to be heard). Overall, therefore, the Department's valuation was upheld in 34 of the 40 appeals cases heard to date.

Multiple Compensation Claims

5.14 We asked the Department to provide details of those herdowners who had received compensation in each of the three years from April 2001 to March 2004. The Department identified a total of 256 herdowners. The compensation paid in these cases amounted to £8.82 million and included:

- 31 herdowners who got compensation of between £50,000 and £100,000
- 15 who were awarded compensation in excess of £100,000, including six who were paid more than £200,000 (**Figure 5.4**).

5.15 We recognise that it can be difficult to eradicate bTB from a herd. However, it is a matter of concern that bTB was present within so many herds for such extended periods of time. In our view, this raises the issue of whether, under a system of 100% compensation, there is sufficient incentive for herdowners to actively seek to prevent infection. In the Department's view, the cost to the herdkeeper in time, business interruption and consequential losses in milk yields, may be an incentive to prevent infection. It pointed to a 2004 DEFRA study which estimated the costs of a breakdown to a herdkeeper at some £1,020 per herd.

Part Five: Compensation, Enforcement and Tackling Fraud

Enforcement and Tackling Fraud

Failure to Comply with Legislation

5.16 The Department is obliged to take enforcement action against herdkeepers for breaches of legislation. The main categories of breach relate to:

- failure to present animals for bTB testing
- failure to comply with restriction notices.

Investigations, which may lead to prosecutions, are conducted by either the Veterinary Services' Central Enforcement Team or the Central Investigation Service.

5.17 We examined investigation activity over the period 2001 to 2006. A total of 15 cases (**Figure 5.5**) have been successfully prosecuted, resulting in fines by the Courts. While the level of fines has varied, it has often been less than the average compensation value of one bTB reactor (£891 in 2005-06).

5.18 The Department told us that, in addition to fines, it has powers to withhold compensation, wholly or partially. It said that compensation is withheld pending investigation – for example, in the three years to March 2006, compensation amounting to some £0.5 million was withheld in 34 cases. Of this, we note that, while some £200,000 has been withheld permanently, £165,000 was subsequently paid in full in respect of 19 cases, due to lack of evidence. Of the remaining 15 cases, 14 are still being investigated and one has been withdrawn.

5.19 The Department also explained that, after a conviction, a Departmental review panel assesses each case, based on legal advice, a veterinary assessment of how far the actions of the convicted herdowner prejudiced disease control and any mitigating circumstances submitted by the herdowner. The panel will decide whether and, if so, to what extent compensation will be paid. As each case is decided on its merits, the Department has not produced any guidance for panels on how much compensation should be paid/withheld.

5.20 For the four-year period to March 2006, we asked the Department in how many cases, following a prosecution, had money owing to a claimant been permanently withheld, how much in total had been withheld and what proportion of total claims value did this amount to in these cases. The Department said that in the past four years, there had been six successful prosecutions of herd keepers for breaches of bTB disease control legislation where compensation has been due. The total value of these cases was £242,270. In one case the total amount due of £20,830 was withheld and in a second case £5,600 out of £18,700 (30%) was withheld. The remaining balance (£202,730) on the other four cases continues to be withheld pending a final decision by the Department.

Figure 5.5: Prosecutions for Failure to Comply with the Legislation April 2003 to April 2006

Date	Outcome of Prosecution Cases	Charges
Oct 03	Case 1: £350 Fine and £57 Costs	Failure to present animals for bTB test (1 charge)
Nov 03	Case 2: £600 Fine and £72 Costs	Failure to present animals for bTB test, obstructing an authorised inspector (3 charges)
Jan 04	Case 3: £2,500 Fine and £7 Costs	Failure to present animals for bTB test, failure to present animals for Brucellosis test, moving animals off restricted premises, failure to notify deaths, failure to notify movements, failure to provide information (9 charges)
Feb 04	Case 4: £500 Fine and £16 Costs	Failure to present animals for bTB test (1 charge)
Feb 04	Case 5: 3 x 1 Month Sentence Suspended for 15 Months and £7 Costs	Failure to present animals for bTB test, failure to present animals for Brucellosis test, failure to maintain a herd register (3 charges)
May 04	Case 6: 2 Year Conditional Discharge and £1,800 Fine	Failure to present animals for bTB test, failure to present animals for Brucellosis test, failure to pen and collect animals for inspection, failure to produce herd records, failure to produce medicine records, failure to notify animal movements (10 charges)
Jul 04	Case 7: £4,000 Fine and £92 Costs	Failure to present animals for bTB testing, failure to present animals for Brucellosis testing, failure to produce medicine records and failure to provide assistance (4 charges)
Aug 04	Case 8: £900 Fine and £139 Costs	Failure to present animals for bTB test, failure to maintain a herd register, failure to notify animal movements, 5 failures to notify animal deaths (12 charges)
Nov 04	Case 9: £200 Fine	Failure to present for bTB testing (1 charge)
Feb 05	Case 10: £1,000 Fine and £457 Costs (£13,110 compensation withheld)	Failure to isolate 5 animals (1 charge)
Oct 05	Case 11: £9,000 Fine and £40 Costs	Failure to present animals for bTB test, failure to present animals for Brucellosis test, failure to produce herd records, failure to produce medicine records (8 charges)
Dec 05	Case 12: £5,000 Fine and £64 Costs (£5,500 compensation withheld)	Failure to observe restriction notice, failure to maintain fences, undue delay in collection and disposal of dead calf, failure to notify a death, failure to present herd records (5 charges)
Apr 06	Case 13: £1,200 Fine and £92 Costs	Failure to detain an animal, failure to maintain a herd register (3 charges)

Part Five: Compensation, Enforcement and Tackling Fraud

Apr 06	Case 14: £2,500 Fine (£20,750 compensation withheld)	Failure to present animals for bTB test, failure to isolate animals, failure to notify a birth, failure to notify animal movements, failure to maintain a herd register, providing false information in relation to a birth, failoure to attach an approved ear-tag (9 charges)
Apr 06	Case 15: £600 and £97 costs plus £330 PVP appearance costs	Failure to isolate for bTB test, failure to notify movement, failiure to present medicine records (3 charges)

Source: DARD

Fraud: Interfering with the bTB Test Site

5.21 The most common form of fraudulent activity involves interference with the bTB test site. However, in terms of proven fraud, there have been relatively few cases. We examined 8 cases investigated by the Department since 2001, of which:

- 5 cases went to prosecution, 2 of which resulted in convictions (see **Case Studies H and I** below). In the other 3 cases the evidence was found to be insufficient
- 1 case resulted in a civil action (the Department denied the £1 million compensation claim lodged by the applicants, who took out a civil action. The case was settled out of court, with a payment to the claimants of £280,000 by the Department)
- 1 case was withdrawn due to time delays
- 1 case was withheld on Counsel's advice due to insufficient evidence.

Prosecutions

5.22 In each of the two prosecution cases, scientific investigation confirmed that the test had been interfered with by administration of a drug at the test sites. For example:

Case Study H:
Interference with bTB Test Site

At a bTB test in December 2002, the Veterinary Officer was suspicious of the symptoms displayed by 14 of the herdowner's cattle which had reacted to the test. After slaughter, laboratory examination of skin samples from around the test site revealed the presence of an irritant drug 'oxytetracycline' - which can cause swelling - in the test site of each of the 14 animals. This had created the appearance of a reaction to bTB. In addition, none of the 14 reactor animals had any permanent incisor teeth at the time of slaughter, despite their claimed age range (between 20 months and 4 years 10 months). The Department decided to withhold compensation of some £21,000.

The herdowner had already been interviewed by the Department concerning illegal movement of cattle during the Foot and Mouth crisis and,

in November 2002 (one month before the herd test), a Department Cattle Identification Inspector concluded that the herdowner's records were a 'catalogue of disaster', with:

- animals wrongly described
- dates of birth not notified to the Department within the correct timescale
- calves notified to cows which are either too young to calve, or not of the breed of the calf notified.

Central Investigation Service concluded that the herdowner was concerned that Cattle Identification Inspectors would perform DNA testing of cattle due to discrepancies identified. The bTB compensation scheme offered the herdowner a method of disposing of the problem animals and making a large sum of money. Also, the Veterinary Officer had reported that the herdowner had enquired during his visits how many reactors would be needed before all the cattle would be taken.

The herdowner was convicted and fined £3,500 plus £7 costs, in March 2004. Following review by the Departmental panel in May 2005, the decision to withhold the £21,000 compensation was upheld and subsequently ratified by judicial review in June 2007.

5.23 The issues raised by **Case H** have serious implications for the Department. The same herdowner was also allowed by the Department to report animal births, months after the purported date, without any sanction. At that time, a six-month delay was allowed between birth and registration, even though the rules required all births to be notified within 27 days. The Department's Central Investigation Service commented that *"this raises concerns about cattle traceability and the Department's ability to account for the whereabouts of cattle from birth to death, which ultimately could have implications for animal and public health"* and recommended that a further inspection be carried out on the herd.

5.24 In the other prosecution case (**Case Study I**), 83 animals (an unusually large number) gave a positive reaction to the bTB test. Compensation, estimated at some £176,000 was withheld in December 2003, pending investigation. The Department was able to demonstrate that there had been interference with the test and prosecuted the herdowner. The Court levied a fine of £5,000 with £20 costs. The case was reviewed by the Departmental review panel who, in June 2007, decided to withhold compensation of £121,000.

5.25 We note that, in both Cases H and I, the herdowners involved received compensation for subsequent bTB disease outbreaks – Case H getting £3,400 in 2005 and Case I receiving £3,000 in 2006. The Department told us that there was no suspicion that these were not genuine breakdowns. In our view, as an added deterrent against fraud, the Department should consider introducing a system of penalties against future compensation claims, where claimants have previously been found guilty of fraud against the Department.

Part Five: Compensation, Enforcement and Tackling Fraud

5.26 A senior Departmental official stated in January 2001 that *"there has …been the suspicion and it is not more than that, that it could suit farmers who are in financial difficulties to have a disease breakdown…"*. In September 2004, the Department issued a Press Release stating that, with immediate effect, it would be strictly enforcing regulations in respect of notification of births, deaths and movements of cattle.

5.27 Proposed changes to the primary legislation include a new offence of 'deliberate infection of an animal' and enhanced powers of entry, seizure and destruction of "things" (animate and inanimate) liable to spread disease. A Court would have the power to disqualify individuals from owning, keeping, dealing, having custody or control of livestock for such periods as the Court sees fit. The legislation is scheduled to be introduced in Spring 2009, subject to the Assembly timetable. The Department also told us that it had increased the complement of staff in its Enforcement Branch from 5, in 2006, to 13 by February 2007.

NIAO Conclusions and Recommendations

On the cost of compensation

5.28 The annual cost of compensation rose steadily from the mid-1990s and, while peaking at over £16 million in 2002-03, remains very substantial, at some three times the 1995 level. In total, some £86 million compensation has been paid in the 10 years to March 2006. Despite concerns expressed within the Department that a change in compensation rate, from 75% to 100% of market value, would make having a reactor more desirable and increase the temptation to 'invent' or import reactors, the higher rate was introduced in 1998. It is notable that the move to 100% compensation coincided with a substantial increase in the number of reactors. We note the Department's comments that there are many factors which could cause a rise in bTB incidence; the change in compensation levels at this time may or may not have been a contributing factor.

5.29 The change in compensation rate has also added considerably to the Department's costs – we estimate that an additional £19.6 million was incurred over the seven years to March 2006. We were surprised that no differentiation has been made by the Department in the rate of compensation it pays, between cases where bTB has been confirmed (in the laboratory or at slaughter) and those cases where, following a skin-test positive reaction, disease is not subsequently confirmed. In our view, the Department should consider doing so, as an added incentive to disease prevention. If, for example, the rate had been reduced to 75% in those 2005-06 cases where bTB was subsequently confirmed, we estimate that compensation totalling some £0.92 million would have been saved. We note the Department's comment that this would require a change in legislation.

5.30 We also noted that there have been a number of multiple claims from herdowners. An analysis provided by the Department showed that 256 herdowners had received bTB compensation in each of the three years to March 2004. This included six who made between 8 and 19 separate claims, each herdowner receiving between £220,000 and £482,000. The Department has made no differentiation in the rate of compensation it pays in cases where bTB has been a recurring problem within a given herd. We suggest that the Department considers doing so, again as an added incentive to disease prevention.

5.31 We note the Department's comments that it has no discretion under current legislation to reduce compensation for repeat outbreaks in the same herd.

On compensation valuations

5.32 The valuation appeals process used for many years by the Department had a number of inherent weaknesses and proved expensive. Over the eight years to October 2004, where herdowners opted for independent valuations, the Department's own valuations (totalling £0.63m) were increased by 68% (£0.43m). New procedures, however, are showing benefits to the Department, both in the incidence of appeal cases and the levels of valuation - over the first two years of the new system, the Department's original valuations having been upheld in 34 of the 40 animals appealed.

On enforcement of the legislation

5.33 The two main areas of enforcement by the Department relate to failure to present animals for bTB testing and failure to comply with restriction notices. We found that, prior to 2003, there was little enforcement activity. Since then, 15 cases have been successfully prosecuted. However, the levels of fines imposed by the Courts often appear relatively modest in comparison with the nature of the offences. We note the Department's comments that, although the deterrent effect of the fines may be limited in enforcement cases, it has powers to withhold compensation wholly or partially, in addition to the fines. Given that bTB remains such a major and costly problem, we would encourage the Department to take a strong line on withholding compensation from all herdowners who fail to comply with the well-established requirements on bTB testing and restriction notices.

On tackling fraud

5.34 The most common form of fraudulent activity is interference with the bTB test site. Although there is suspicion within the Department as to the presence of fraudulent claims for bTB compensation, only eight cases have been investigated and, to date, there have been only

Part Five: Compensation, Enforcement and Tackling Fraud

two prosecutions. One of the eight fraud investigation cases was withdrawn, due to time delays and so the opportunity to secure a conviction was missed.

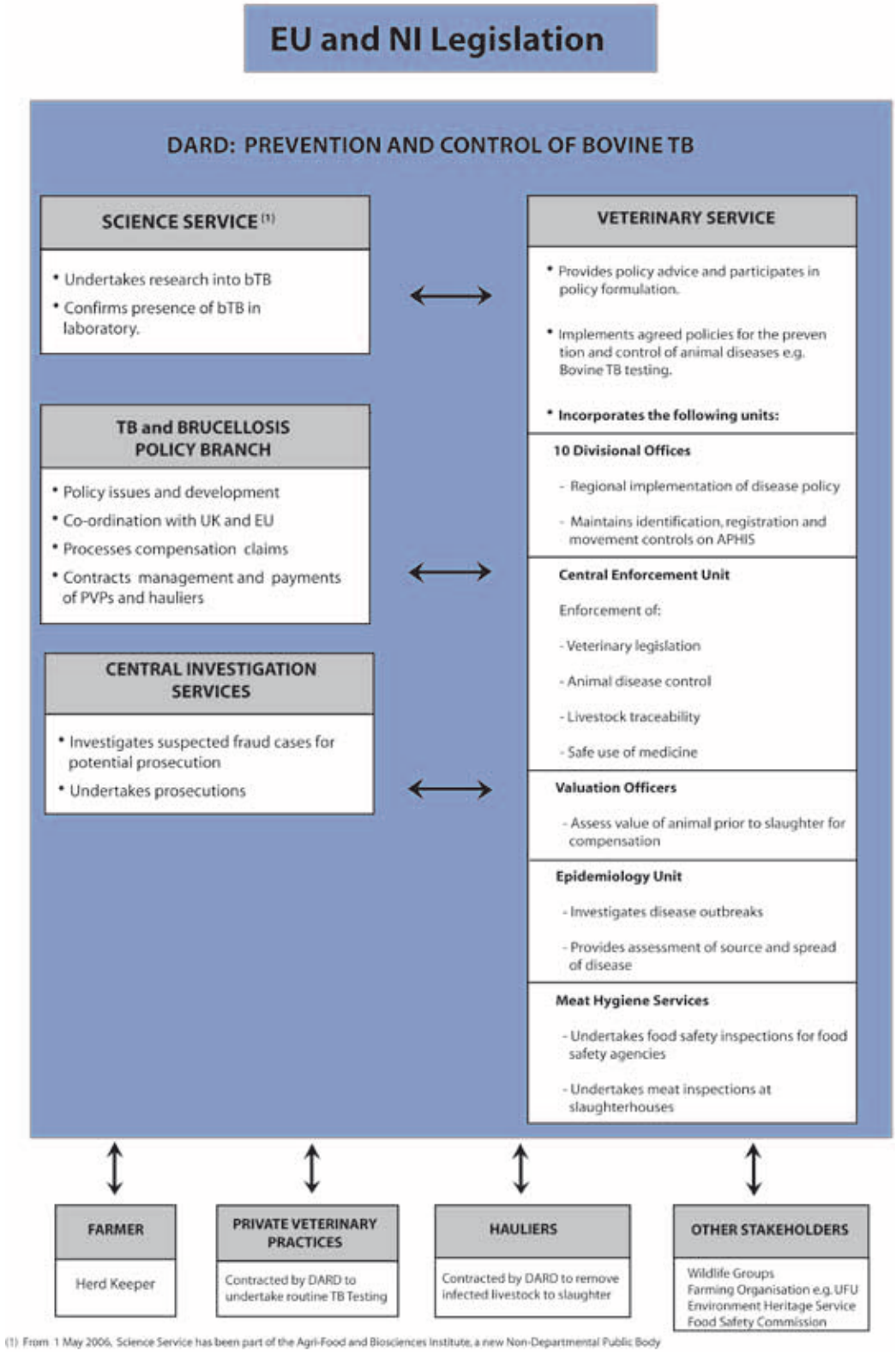
5.35 Given the widespread incidence of bTB and the substantial sums that can be obtained in compensation, especially with the rate of compensation being 100% of market value, the inherent risk of fraudulent claims is clearly very high. In keeping with its well-publicised policy of zero tolerance to fraud, the Department must devote sufficient resources and apply the appropriate procedures necessary to ensure that it takes every opportunity to prosecute fraud. We welcome however, the increase in 2006-07, from 5 to 13, of Enforcement Branch staff.

5.36 It is also a matter of concern that, in the two fraud cases successfully prosecuted, the herdowners involved received compensation for subsequent bTB disease outbreaks (one getting £3,400 in 2005 and the other £3,000 in 2006). The Department told us that there had been no suspicion that these were not genuine breakdowns. In our view, as an added deterrent against fraud, the Department should consider introducing a system of penalties against future compensation claims, where claimants have previously been found guilty of fraud. We note the Department's comments that their legal advice is that this would not be possible under current legislation.

5.37 We welcome the Department's intentions to strengthen (from Spring 2009) the legislative powers available, both to it and the Courts; in particular, the inclusion of a new offence of 'deliberate infection of an animal', where the Court will have the power to disqualify individuals from owning, keeping, dealing, having custody or control over livestock for such periods as it may see fit.

Appendices

Appendix 1: Bovine TB Programme – Key Delivery Structures
(paragraph 1.4)



(1) From 1 May 2006, Science Service has been part of the Agri-Food and Biosciences Institute, a new Non-Departmental Public Body

Appendix 2: Breakdown of Yearly Expenditure on bTB Control and Eradication Programme 1996-97 to 2005-06
(paragraph 1.7 and Figure 1.2)

Year	Compensation £m	PVPs £m	DARD Delivery Costs		Total Spend £m	Salvage[2] £m	Net Total £m
			Staff Costs £m	Other Costs [1] £m			
1996/97	2.26	3.92	4.21	0.88	11.27	(1.19)	10.08
1997/98	2.92	4.04	4.26	1.05	12.27	(0.96)	11.31
1998/99	4.90	4.73	4.49	1.26	15.38	(1.07)	14.31
1999/00	5.78	4.87	4.98	1.36	16.99	(1.66)	15.33
2000/01	7.92	5.33	4.11	1.43	18.79	(2.08)	16.71
2001/02	8.59	4.88	3.50	1.34	18.31	(1.76)	16.55
2002/03	16.25	5.88	3.47	2.07	27.67	(5.66)	22.01
2003/04	15.41	6.52	4.17	1.93	28.03	(3.60)	24.43
2004/05	12.59	7.51	4.17	2.82	27.09	(3.30)	23.79
2005/06	9.23	6.29	5.42	2.70	23.64	(2.02)	21.62
Totals	**85.85**	**53.97**	**42.78**	**16.83**	**199.43**	**(23.29)**	**176.14**

Source: DARD

Notes: (1) Breakdown of 'Other' Costs

Other Costs	£m
Tuberculin	5.35
Science Service:	
Research	4.67
Laboratory Testing	3.16
Haulier Costs	1.92
Miscellaneous	1.73
Total	**16.83**

(2) Salvage refers to income from meat plants for carcasses of slaughtered bTB reactor animals

Appendix 3: Progress on the Implementation of Policy Review Measures (paragraph 1.13)

The Department's July 2002 Policy Review identified a range of measures which it considered would improve the economy, efficiency and effectiveness of the existing bTB policy and ensure compliance with statutory regulations. The Review recommended that, *"where possible, implementation of the revised policy…be fast tracked, given the worsening disease position"*.

In June 2003, the Minister endorsed the outcome of the Review and approved the implementation of thirteen measures. An additional four measures were identified for further consideration. In order to progress implementation, the Department set up a series of field working groups, each with responsibility for the consideration of specific measures. Progress on the implementation of each of the 2002 Policy Review measures is provided below:

- Part A – Measures to be implemented (1-13)
- Part B – Measures requiring further work on their feasibility before a decision is made (14-17).

= Progress to Dec 2006 = Progress during 2007 & 2008

2002 Policy Review Measures (endorsed by Minister June 2003)	**Progress to December 2006** **Progress during 2007 and 2008 is shown separately below as appropriate**	**Implemented by December 2006**	**Report Paragraph Reference**
PART A: Measures to be implemented			
1. Tighten restrictions on overdue herd tests and introduce a 12-month certificate which details the date each (annual herd) test transpires. (NOTE: Previously recommended in the 1992 Policy Review and the 1994 PAC Report)	*On the annual herd test:* Following consultation, the Department phased in tighter restrictions on annual herd tests than originally proposed in the 2002 Policy Review. These now ensure compliance with the EU Directive. Since November 2003, each farmer receives a 12-month certificate which notes the annual herd test expiry date. From November 2004, the Department has introduced various enforcement actions including restrictions on the movement of animals and the charging of costs to herd keepers for second tests. Since implementation of this measure there has been a decline in the number of overdue annual herd tests. *On 'restricted' and 'at risk' tests:* Tighter controls were introduced in August 2004 and November 2004 to address overdue testing of 'restricted' and 'at risk' herd tests. These controls included the reallocation of overdue tests to Private Veterinary Practitioners (PVPs) and the imposition of a range of sanctions on herds with overdue tests, such as the suspension of Farm Quality Assurance status and additional movement restrictions.	Yes	4.5 to 4.8 and Appendix 9

	The tighter restrictions and sanctions on overdue tests in November 2004 has led to a fall in the number of outstanding herd tests from 3,917 in 2003 to 312 herds as at February 2007.		
2. Review current testing arrangements. (NOTE: Previously recommended in the 1992 Policy Review and the 1994 PAC Report)	In late 2003, a Working Group was set up to review testing options. A Scoping Review was undertaken and completed by Summer 2005. A consultant was appointed in June 2005 to report by Autumn 2005. A final draft was considered by the bTB Review Steering Group in Spring 2006 and the final report was completed in November 2006. The Department is currently reviewing the report before entering into a consultation process with key stakeholders.	Partially	2.31 and 2.32
	The Department reviewed the Consultant's report in April 2007 and held an informal meeting with Veterinary Associations in May 2007. The Department told us, in June 2007, that options being considered for bTB testing included as an interim measure, continuing with the current arrangements of using PVPs to complete similar levels of testing, but within a clear contractual agreement, including monitoring arrangements, to ensure procurement of services is completed in an open and transparent manner (e.g. through a select list of PVPs or Practices or registration at DVO or at county level). Longer term, the Department was considering two other options: • extending the PVP role to include wider biosecurity surveillance responsibility, and • introducing lay testing; it was assessing the outcome of the GB lay testing pilot and awaiting GB proposals on further evaluation. The Department said that the Veterinary Associations were strongly opposed to the main recommendations of the review and would be submitting their own comments on the way forward. The Department added, in March 2008, that it has consulted informally with the AVSPNI about the consultants' report and the AVSPNI has submitted detailed comments on the report's findings. The Department intends to await the publication of the NIAO's report on the control of bTB before making any proposals for future arrangements for bTB testing.		2.45

Appendix 3: Progress on the Implementation of Policy Review Measures (paragraph 1.13)

3. Set up an expert group to review all the available information from badger studies carried out in GB, the RoI and NI. (NOTE: Previously recommended in the 1992 Policy Review and the 1995 Review of Enhanced Eradication Programme)	The Policy Review Group recommended a culling trial to quantify the role of the badger in bTB spread. In May 2004, a Badger Stakeholder Group was established. It is chaired by the Department and includes representation from the Environment and Heritage Service as well as stakeholders from the farming community and environmentalists. The Group's remit is to: • review the findings from ongoing badger research in GB, RoI and NI • consider the need for a badger management strategy. The RoI reported the outcome of its 5-year 'Four Area Trial' in 2005. While the results provided evidence that badgers do play a role in increasing bTB in cattle, the reliability of the test results was questioned. The main conclusion was that maintaining the elimination of badgers over a substantial area is likely to have a beneficial effect on the incidence of bTB in cattle. However, although feasible, the widespread removal of badgers was not considered a viable strategy for long term control of bTB. The results of the final culling strand of the GB 'Randomised Badger Culling Trial' are expected during 2007.	Partially	3.16 to 3.20
	In June 2007, the Independent Scientific Group reported on the GB 'Randomised Badger Culling Trial'. They concluded that badgers do contribute to cattle disease in some parts of the country but no practicable method of badger culling can reduce the incidence of cattle bTB to any meaningful extent and several culling methods may make matters worse. Also, rigidly applied and targeted cattle control measures can reverse the rising incidence of disease and halt its geographic spread. In March 2008, the Department said that it is currently working with stakeholders to review all relevant information available on badgers and bovine TB and to consider the potential need for a badger management strategy to help reduce TB levels in cattle in Northern Ireland. The Group published its report in April 2008 on its findings to date and the actions it has agreed on gathering information to better inform decisions on the best way forward. A survey of the local badger population (number and local distribution), which commenced in November 2007, was published in September 2008.		3.31

4. Set up a working group to review the gamma interferon blood test for bTB in NI. (NOTE: Previously recommended in the 1992 Policy Review, the 1994 PAC Report and the 1995 Review of Enhanced Eradication Programme)	In December 2003, a Departmental Working Group recommended use of the blood test as an additional tool for tackling chronically-infected herds. A year-long pilot trial, initially in the two Divisional Areas with the highest incidence of bTB, commenced in October 2004. In October 2005, the Department noted that *"there is clear evidence of the test's potential to remove additional infected cattle that the skin test misses...there is no doubt that it has made a contribution* [to disease control] *with potential for increased contribution in the future"*. The trial, which was extended (Phase II) to include the next three Divisional Veterinary Areas with the highest incidence of bTB, ended in late 2006. The blood test was introduced in problem herds in the RoI in April 2005 and rolled out in England and Wales in October 2006 as part of their respective bTB control programmes. Following evaluation, the Department intends to make a decision about introducing the blood test as part of its bTB control programme.	Partially	2.10 and 2.11
	In June 2007, the Department launched a voluntary blood test scheme (with compensation); the policy needs further development before the scheme can be rolled out on a wider basis including overcoming the logistics of transporting and testing samples on the same day. In March 2008, the Department told us that further policy development in this area will depend on scientific developments and the relative priority over other measures.		2.35
5. Highlight the importance of boundary fencing as part of good biosecurity practice.	The 2002 Policy Review noted that *"lateral spread across inadequate boundary fencing was an impediment to successful control and eradication of bTB* [noting that] *79% of fences in NI did not prevent nose-to-nose contact between farms* [and] *none of the study farms had 100% nose-proof fences"*. The Department launched its Biosecurity Code in May 2004 and provided a copy to all farmers. The Code states that *"Farm boundaries should be secure, and be checked regularly. There should be at least a 3-metre gap between neighbouring livestock"*.	Yes	3.6 to 3.8
	The 'Diseases of Animals Order', to be introduced in Spring 2009 subject to the Assembly timetable, contains powers to draw-up new, disease-specific biosecurity codes and make compliance with them compulsory.		3.25

Appendix 3: Progress on the Implementation of Policy Review Measures (paragraph 1.13)

6. Increase the resource allocated to bTB testing by employing additional Temporary Veterinary Officers (TVOs) (NOTE: Previously recommended in the 1994 PAC Report)	The 2002 Policy Review recommended increasing the number of TVOs (from 14 in 2002) to 30 i.e. similar to the numbers in place during the 1992-95 Enhancement Programme. Following the Review, the number of TVOs fell to 12 in 2003. Recruitment thereafter was slow but, by March 2006, the Department had 29 in-house bTB vets in post.	Yes	2.13 Appendix 4 PAC Conclusion iv
	The staff complement is now at the recommended level of 30 in-house bTB vets.		
7. Change the compensation valuation system to make it less subjective, explore options for establishing a reference list of prices that would be relevant and practical in NI and establish new approval arrangements. Also, the herdowners should pay for any independent appeal valuations. (NOTE: Previously recommended in the 1992 Policy Review and the 1994 PAC Report)	In October 2004, new valuation provisions were introduced for bTB (and Brucellosis). These involve: • herdowners paying for independent valuations • time-limits on the valuation process • independent valuers' valuations are no longer binding – they can be appealed • establishment of an independent appeal system. A valuation reference list for 'store cattle' was piloted in Autumn 2004 and validated during 2005. The list is now used as a support tool for Department valuers to reduce the subjectivity of live valuations of commercial animals. Additional pilot valuation lists, for commercial beef and dairy stock, are being developed. A Senior Livestock Valuation Officer has been appointed to monitor valuations and oversee the training/supervision of Livestock Valuation Officers. The new procedures in place are showing benefits both in the incidence of appeal cases and levels of valuations; over the first two years of the new valuation system the Department's valuations were upheld in 34 out of 40 animals appealed.	Partially - significant progress made	5.12 to 5.13

8. Set up a working group to review the Animal and Public Health Information System (APHIS) and recommend improvements.	An APHIS bTB Working Group was established in 2003. The group concluded that the separate working groups established to take forward each Policy Review measure would design the necessary APHIS changes. The remit of each working group includes planning for APHIS enhancement. The 2004 EU FVO report noted that the herd status categories on APHIS (either Officially Tuberculosis Free (OTF), suspended or withdrawn) did not comply with the EU Directive. The necessary upgrade has been developed and implementation is planned in 2007.	Partially - ongoing	
	The upgrade was implemented in June 2007.	Yes	
9. Bring the Registered Dealers list into compliance with EU requirements.	The EU Directive requires that Dealers engaging in intra-community trade in animals and animal products be approved and registered. The Animals and Animal Products (Import and Export) Regulations (NI) 2005 (effective from April 2005) provides the Department with the powers to keep a register of Dealers with approved premises engaging in intra-Community trade. The Policy review recommended developing a Dealer registration and approval system similar to RoI. An enhanced system will apply to all Dealers involved in *internal trade* within Northern Ireland. The Department has included the necessary provision in a proposed amendment to the Diseases of Animals Order (expected to be introduced in late 2008).	Yes No	3.10
	The Diseases of Animals Order is not expected to be introduced until Spring 2009, subject to the Assembly timetable. Secondary legislation to bring in specific requirements will be necessary.		3.27
10. Undertake a scientific project on biometric (e.g. DNA) identification of cattle.	Following successful pilot DNA sampling trials, from 2003 to 2006, the Department intends to introduce the use of an 'identigen tag', in certain cases, through an amendment to the Diseases of Animals Order (expected in late 2008).	No	
	The Diseases of Animals Order is not expected to be introduced until Spring 2009, subject to the Assembly timetable.		

Appendix 3: Progress on the Implementation of Policy Review Measures (paragraph 1.13)

11. Undertake a study into use of digitised mapping on farms for disease control.	The Veterinary Service had browser access to the Grants and Subsidies Geographic Information System (GIS) and uses the system to produce farm maps. From June 2006, the Department introduced an enhancement to GIS to provide access, for Veterinary Service staff, to maps covering a wider area e.g. neighbouring farms which will assist them in mapping bTB breakdowns.	Yes	4.16
12. Establish bTB Forum with stakeholders, utilising the existing Rural Stakeholders Forum arrangements. (NOTE: Previously recommended in the 1995 Review of Enhanced Eradication Programme)	This was taken forward through the Animal Health and Welfare sub-group (established late 2002) of the Rural Stakeholders Forum. The Forum meets 4-6 times per year and bTB is a standing agenda item. This enables the Department to update stakeholders on disease incidence, implementation of control measures and provides a platform for discussion. The stakeholders played a leading role in the development of the Department's Biosecurity Code.	Yes	3.7
13. Implement an animal health/ disease prevention 'Life-Long Learning Programme'. (NOTE: Previously recommended in the 1992 Policy Review and the 1995 Review of Enhanced Eradication Programme)	The 'Animal Health Challenge' programme was introduced in 2005 to help farmers improve the performance and welfare of their cattle. It is anticipated that planned health management will minimise the incidence of disease on their farms. Participating farmers are required to develop a health and welfare strategy, produce a Farm Action Plan and meet various biosecurity criteria. To March 2006, 204 herdkeepers (against a target of 230) have participated. Some 25,000 herdowners remain.	Partially	3.9
	The Department informed us that between March 2006 and March 2008, a further 685 herdkeepers participated, bringing the total number of participants to 889.		3.26

PART B: Measures requiring further work on their feasibility before a decision is made			
14. Consider removal of animals after a second-time inconclusive bTB test. (NOTE: Previously recommended in the 1994 PAC Report)	The 2002 Policy Review identified that the Department's policy on the treatment of inconclusive animals after the first re-test did not meet the requirements of the EU Directive. Compliance has significant, additional resource costs for the Department. In 1994, this cost was estimated at £2.8 million, based on an additional 2,000 animals being slaughtered i.e. treated as reactors following the re-test. A repeat study, in 2005, estimated costs at £1.1 million, based on 1,300 additional slaughtered animals and recommended that *"based on the roughly three times increased risk, at both herd and animal level, … the policy be changed"*. The Department is undertaking further work to assess the costs and benefits before a decision is made. The EU has clearly stated that, irrespective of cost considerations, UK legislation must be in line with the EU Directive and that compliance with this issue should be addressed at the UK level. This issue is being considered in conjunction with DEFRA.	No	4.10 to 4.13
	The Department's latest assessment did not demonstrate that benefits of implementing a more rigorous approach to the removal of inconclusives outweigh the costs in financial terms. The Department told us in March 2008, that farmers have always had the option to voluntarily dispose of animals that have tested twice as an inconclusive. These animals may be voluntarily slaughtered rather than being taken as reactors.		4.26 bullet point 5
15. Consider pre-movement testing for bTB (NOTE: Previously recommended in the 1992 Policy Review and the 1994 PAC Report)	Under the EU Directive, export animals must undergo a pre-movement test if the Annual Herd Test was carried out more than 30 days prior to export. Although, the EU Directive does not require such tests on animals involved in internal trade, an EU bTB taskforce in 2000 suggested that *"consideration should be given to introducing a pre-movement test for animals over one year old and, in particular, for breeding animals"*.	No	3.13 to 3.15

Appendix 3: Progress on the Implementation of Policy Review Measures
(paragraph 1.13)

The 2002 Policy Review recommended that pre-movement testing, using the skin test, be adopted. The Department is assessing the costs and benefits of introducing pre-movement testing for animals which have missed their Annual Herd Test. Cost/benefit information is also being developed to assess the impact of introducing pre-movement testing in NI for all animal movements. In 2006, each region in GB introduced pre-movement testing; the annual herd test is only permitted as a pre-movement test if it was undertaken within 60 days of the intended move.	The Department has decided not to introduce bTB pre-movement tests as all herds in NI are required to undergo annual bTB testing. However, the Department has decided that single animals that had missed an annual test in NI i.e. moved between herds, should be restricted after 15 months until they are tested and this additional control was introduced in July 2008.	3.30		
16. Consider the enforcement of fencing. (NOTE: Previously recommended in the 1992 Policy Review)	The 2002 Policy Review recommended legislative change to make it compulsory for all farmers to have stock/nose-proof boundary fencing. An amendment to the Tuberculosis Control Order came into operation on 1st October 2004 which states that: *"The keeper of a herd shall maintain the fences dividing his holding from adjoining land in such condition as to prevent: (a) contact of his herd with animals on adjoining land; and (b) his herd from straying from the holding."* The Department has yet to develop an enforcement framework. However, it is proposed to introduce powers to make compliance with new, disease-specific biosecurity codes compulsory – including nose-proof fencing - under the 'Diseases of Animals Order' in late 2008.	Partially	3.6 to 3.8 3.25	
	The Diseases of Animals Order is not expected to be introduced until Spring 2009, subject to the Assembly timetable.			

17. Consider changing the existing compensation arrangements for both bTB and Brucellosis…and, through consultation on the NI Animal Health and Welfare Strategy, …balancing the cost of animal disease control between the taxpayer and the industry. (NOTE: Previously recommended in the 1992 Policy Review and the 1994 PAC Report)	Changes to compensation arrangements included consideration of: (i) *a cap on compensation*. The purpose of the proposed cap on compensation was to address the risk of paying excessive sums. No cap was introduced, but the Department addressed the risk through changes to the valuation procedures introduced in October 2004 (see measure 7 above) (ii) *introducing powers to deduct compensation*. New powers to make deductions from compensation for failure to comply with new, disease-specific biosecurity codes are included in the proposed amendment of the Diseases of Animals Order (expected). The Department deferred rationalisation of compensation systems across all diseases pending development of a NI Animal Health and Welfare Strategy. The Strategy, which was launched in May 2006, notes that while *"there are very good reasons why farmers should be compensated for culled animals…there is no compelling argument for the costs of such compensation being borne wholly by the taxpayer…achieving an appropriate balance* (will) *require full consultation"*.	Yes No No	5.6 5.27
	The Diseases of Animals Order is not expected to be introduced until Spring 2009, subject to the Assembly timetable. The Department said it plans to examine the existing policies for bTB (and Brucellosis) during the next 3-year period to ensure they encourage farmers to prevent the introduction of disease and avoid the re-introduction of disease in their herds. As part of this work, the Department will examine the existing arrangements for animal disease compensation to determine whether the existing arrangements need to be modified, so that they provide encouragement to farmers to prevent or considerably reduce future risk of infection, rather than a disincentive.		5.28 to 5.31

Appendix 4: DFP Memorandum dated 23 March 1994, on the 1st Report of the Committee of Public Accounts, Session 1993/94 (paragraph 1.19)

Department of Agriculture for Northern Ireland: Animal Health Measures

PAC Conclusion	Departmental Response, March 1994
1. PAC Conclusion (i) We note and share the Department's concern about the increasing trend in the incidence of Bovine TB and expect to hear that the enhanced eradication programme has resulted in an early reduction in disease levels (paragraphs 6 and 8).	**1. Response** The Department is continuing to pursue the target set in the enhanced programme. However the level of disease being detected is higher than expected. More intensive testing has led to more disease being found and this could eventually affect the achievement of the original target. Ultimately the success of the programme is also conditional on other influences over which the Department has no direct control such as the level of TB in the Republic of Ireland.
2. PAC Conclusion (ii) We consider that the Department should take steps to implement quickly all practicable recommendations made by its Policy Evaluation Group for improving control of BovineTB and reducing eradication costs (paragraph 7).	**2. Response** The Policy Evaluation Group report has been adopted by the Department and 15 of the 22 recommendations are already being implemented. Four of the recommendations cannot be accepted for legal or practical reasons. A further 3 recommendations are still under consideration.
3. PAC Conclusion (iii) We recommend that DANI should seek to confirm its interpretation of the EC Directive which requires annual testing and pre-movement testing of herds throughout the United Kingdom where disease levels rise above certain thresholds (paragraphs 8 and 9).	**3. Response** DANI has confirmed its interpretation of the Directive (64/432/EEC) with the Ministry of Agriculture, Fisheries and Food. The Directive is currently under review and the United Kingdom will be seeking to ensure that the current interpretation of both the frequency of testing and pre-movement testing provisions will be retained.
4. PAC Conclusion (iv) In view of the savings which are possible if testing work could be carried out by the Department's own temporary veterinary officers instead of by private veterinary practitioners, we would encourage the Department to increase the numbers of its own officers for this purpose (paragraph 11).	**4. Response** The current complement of temporary veterinary officers (TVOs) has been determined taking into account the availability of veterinarians to do this work. At present the number of TVOs employed is at an all time high. Recruitment is kept under review and if additional TVOs can be recruited cost-effectively the Department will reconsider the complement taking account of all relevant circumstances.

5. PAC Conclusion (v) [see note 1] Information provided by the Department in answer to our questions shows that, depending on the rate of testing which could be achieved by lay testers, significant savings could be made if such staff were used for at least part of the test. We recommend, therefore, that DANI should make every effort to explore the most cost-effective ways of using lay testers and should establish, through consultation with the Ministry of Agriculture, Fisheries and Food and the Royal College of Veterinary Surgeons, the maximum extent to which lay personnel could be involved in carrying out the Bovine TB skin test (paragraphs 12 and 13).	**5. Response** The Department has no objection in principle to lay testers. However the Royal College of Veterinary Surgeons continues to take the view that the use of lay testers to diagnose disease is unacceptable. The Department considers that the achievement of a reliable blood test should enable progress to be made towards reducing the incidence of TB with the consequent cost benefits that would bring by allowing less frequent testing to be adopted. The Department will keep the potential for use of lay testers under review.
6. PAC Conclusion (vi) [see note 2] We are disappointed that it has taken so long to validate the blood test, particularly since our predecessors noted its potential advantages in 1986-87. We note the results of a major field study should be available by the end of 1993 and if these are satisfactory we look to the Department urgently to seek the necessary approvals for its use (paragraph 14).	**6. Response** Although research work on a blood test has been ongoing for a number of years the direction of research effort changed in 1990 to concentrate on the specific blood tests, now being subjected to an extensive field trail. Developing the technique for a test to diagnose disease is a complex area of science. It inevitably takes time to produce a test which is reliable and accurate and which is at least as good as the present skin test. The Department hopes that a successful outcome is possible and if so the necessary approvals will be sought urgently. The results of the field study are currently being evaluated.
7. PAC Conclusion (vii) [see note 3] We consider that the Department should take early steps to investigate the extent to which the cost of diagnostic kits for the blood test might be reduced in order to facilitate the completion of an accurate cost comparison with the skin test (paragraph 15).	**7. Response** The cost of diagnostic kits will be carefully examined as part of the evaluation of the blood test when all the relevant research work has been completed and assessed.
8. PAC Conclusion (viii) We welcome the introduction of a computerised system to maintain detailed records of animals and herds in Northern Ireland and the Department's view that this has been successful in identifying disease more quickly. However, it is disappointing that, mainly because of the failure of farmers to keep the Department informed of the deaths and retagging of animals, about 27	**8. Response** It is the Department's view that the minor discrepancies referred to have no significant implications for disease control. Most of the animals not accounted for on the computer system are dead and therefore present no disease risk. A number are retagged animals which are eventually traced and tested. The remainder are usually animals which have left Northern Ireland and do

Appendix 4: DFP Memorandum dated 23 March 1994, on the 1st Report of the Committee of Public Accounts, Session 1993/94 (paragraph 1.19)

per cent of a sample of records examined by the NIAO contained minor discrepancies (Paragraph 16).	not contribute to disease spread. Where an animal which cannot be accounted for is subsequently identified it must be tested before it can be moved.
9. PAC Conclusion (ix) We consider that more vigorous efforts should be made to prosecute farmers who do not maintain up-to-date records of their herds (paragraph 17).	**9. Response** EC Directive 92/102 on the identification and registration of animals imposes additional requirements on farmers to maintain records on animal movement. This will be implemented in the near future and the Department will be ensuring that farmers comply. Extra resources have been allocated for this purpose.
10. PAC Conclusion (x) We note that the Department is convinced that its system for compensating farmers for animals which have had to be destroyed is the most cost-effective and that overall compensation is no higher than in the Republic of Ireland (paragraphs 18 and 19).	**10. Response** The Committee's conclusion has been noted. The system will be kept under review.
11. PAC Conclusion (xi) We are concerned that the problem of controlling and eradicating Bovine TB in Northern Ireland is exacerbated by higher incidences of the disease in the Republic of Ireland, particularly in those counties along the border. We urge the Department to continue to develop a level of co-operation which will ensure that there is a regular exchange of essential information and that every effort is being made to address this serious problem (paragraph 20).	**11. Response** There is regular contact and co-operation between the Department and the Republic of Ireland authorities. At senior level, officials in both Departments recognise the value of a co-ordinated approach to disease control and there is continued liaison through regular meetings. At local levels there is already a system for exchange of relevant information about disease factors. This has undoubtedly contributed to a willingness to act with common purpose. The Department will be seeking to improve co-operation and liaison at both levels.
12. PAC Conclusion (xii) We recommend that DANI should endeavour to obtain financial assistance from the EC Veterinary Fund to help with its animal health programme (paragraph 21).	**12. Response** The DANI application for assistance from the EC Veterinary Fund for disease control programmes has been unsuccessful in part because of the limited amount of money available in the Fund. The bid remains active for 1994 and will be carried into subsequent years if necessary. The Department has taken steps to ensure that its request for aid will have parity with the Republic of Ireland's bid for similar assistance.

Notes:

1. **PAC Conclusion (v): Progress on the use of lay testers since 1994**
   In 1995, DEFRA revisited the area of lay testers but RCVS remained opposed to their introduction. The 2002 Policy Review considered the use of lay testers but as a 'reserved matter' the Department could not progress this on its own. In July 2003, in order to clear the major backlog of bTB testing in the wake of FMD, DEFRA consulted RCVS on proposals for bTB testing by technicians. Following agreement with the RCVS a lay testing pilot study is underway. This has re-opened the potential for savings in programme costs arising from lay testing.

2. **PAC Conclusion (vi): Advantages of a bTB blood test as compared to the bTB skin test**
   The advantages of a blood test over the skin test include: requires only one farm visit (compared to two visits for the skin test, hence scope for reduced resource costs to both the Department and farmer), allows better standardisation of the interpretation of test results, reduces the scope for interference with the test results and enables the sample to be used for other purposes e.g. combine with Brucellosis test.

   Progress on the use of a blood test since 1994:

   In 1996, the working group reported the results of the field trial within DARD; they could not recommend that the blood test replace the skin test because of the large number of blood test positive cattle identified which appeared to be uninfected i.e. false reactors. The report recommended that further research for a new blood test be given priority, and the blood test should be used in problem herds and considered for pre-movement testing. Research into the development of a blood test remains ongoing; a reliable blood test remains elusive. The use of the blood test as a supplementary test is now accepted by the EC, and, following the 2002 Policy Review, the Department introduced a voluntary blood test scheme in June 2007 (see **Appendix 3**). The cost benefits estimated in 1997 from an improved test for bTB, based on a reliable blood test, have not been achieved.

3. **PAC Conclusion (vii): Progress on the use of diagnostic kits**
   The development of a diagnostic blood kit was not taken forward in the light of the disappointing field trial results.

Appendix 5: Submission from the Ulster Farmers' Union
(Executive Summary, paragraph 1.22)

NIAO Report on: The Control of Bovine Tuberculosis in NI

Further to your letter of 2nd May 2007 which invited UFU views on the control of Bovine TB in Northern Ireland we have considered the areas you have highlighted and would like to make the following comments:

Any areas of the programme which UFU consider have worked well

i. The Bovine TB Control programme in Northern Ireland has been subject to significant amendments in recent years as the disease situation deteriorated after the suspension of herd testing during the Foot and Mouth Disease (FMD) crisis. Many of the changes which have taken place since then, such as the tightened enforcement of overdue tests and the closure of herds with inconclusive animals, has simply helped to bring disease levels back to where they were pre-FMD. It is the UFU's opinion that the TB control programme will never lead to the eradication of this disease whilst a major reservoir of infection in wildlife continues to be completely ignored by policy makers. The current herd testing, restriction and removal scheme (for positive cattle) works reasonably well insofar as the objectives of the current programme is concerned but UFU would recommend an overhaul of the programme if real progress is to be made.

Any areas of the programme which UFU consider require amendment / improvement

ii. UFU has been working closely with DARD and Private Veterinary Practitioners in recent weeks to review operation of the TB control programme on the ground. A wide range of operational matters were reviewed as part of a 'TB away day' exercise and an action plan is currently the subject of consideration for taking forward by all relevant parties within Government and Industry. The main area of the programme which UFU considers as needing improvement is the overall approach to tackling disease. It is totally unsatisfactory to the farming industry that thousands of infected cattle are removed each year (at huge expense to the farming industry and taxpayers) yet infected wildlife remains to infect herds on an ongoing basis. In many 'hotspot' areas and in many 'closed herd' scenarios much evidence points to the source of infection coming from wildlife interactions with cattle yet any interventionist policies to remove infected wildlife continue to be ignored by Government in the UK. It is all the more frustrating to the farming sector in Northern Ireland that a holistic approach (involving the removal of

infected wildlife) successfully takes place in RoI and where the number of TB reactors has been almost halved in the past 8 years.

A view as to whether eradication is likely to be achieved

iii. UFU does not believe that the current TB programme in operation in Northern Ireland will ever result in the eradication of the disease.

UFU's views on barriers to eradication

iv. There are a number of barriers to the eradication of Bovine TB in Northern Ireland. One of the main areas, as outlined above, is the presence of a reservoir of infection in the wildlife population which will take a considerable amount of effort and will to clean up. Additionally, the very nature of the Northern Ireland livestock industry with high population densities of livestock in close proximity and the fragmentation of farm holdings also present significant challenges to disease eradication.

UFU's views on the costs / benefits and advantages / disadvantages of the:

v. **Current Bovine TB testing regime:** The main driver behind the current TB testing regime is the protection of public health and hence the significant contribution which is made to the programme from the public purse. UK Government is currently pursuing a policy of responsibility and cost sharing which has the aim of recovering more costs from industry in the area of animal health and welfare. UFU is totally opposed to a further cost sharing policy in the absence of a real say in how disease policies are made and delivered on the ground. The industry already contributes a great deal to the control programme in terms of gathering animals for herd testing, dealing with herd restrictions when they are imposed and loss of thrive in animals after enduring herd tests. UFU would argue that an endless cycle of herd testing and reactor removal will never deliver the real cost savings that could be achieved if a more comprehensive approach to the disease programme (including removal of diseased wildlife) is employed.

vi. **Adequacy of research on disease spread:** UFU welcomes the amount of research into TB which takes place in Northern Ireland and we have been encouraged by the strain typing work that has been undertaken at AFBI (VSD) to identify the unique clusters of disease throughout cattle and badger

Appendix 5: Submission from the Ulster Farmers' Union
(Executive Summary, paragraph 1.22)

populations across Northern Ireland. It is essential that the knowledge gained from such research is incorporated into actual control measures on the ground. One area of research that has been most contentious in Great Britain and the RoI is badger culling trials. UFU has long argued that similar trials should be conducted in hot spot TB areas of the Province as it would clearly demonstrate to farmers that DARD is serious about helping the industry to eradicate this disease. There have been so many claims and counter claims about the GB culling trials that farmers have lost all confidence in UK Government that this issue will ever be properly addressed. Another area that RoI has been very actively working towards is the development of a vaccine for badgers which could prove one of the most important tools in dealing with this disease in future years.

vii. **Publicity on Bovine TB undertaken by the Department:** A number of the main focus areas of the TB 'away day' exercise was the improvement in communication of control measures to farmers and PVPs; on the communication between Divisional Veterinary Offices and with Veterinary Service HQ; correspondence with farmers affected by TB restrictions, and; local communication at ground level particularly within hot spot areas. UFU is hopeful that communications between all parties will improve following the away day exercise. Another key area which was flagged up during the exercise was the need for publication of clear information about the control programme, for example: explaining to farmers that animals can be infected with TB without showing visible lesions; explaining the circumstances when the blood test can be beneficial to use in conjunction with the skin test, and; effectively explaining the policy on inconclusive animals to farmers. UFU believes that lessons can be learned from the Department of Agriculture in RoI where regular updates are given through the media on the state of play with TB and how changes to policy have contributed towards the disease situation.

viii. **Use of the blood test as opposed to the skin test as a means of Bovine TB disease detection:** Current EU legislation governing the control and eradication of Bovine TB does not permit the use of the blood test on its own as the primary means of disease detection. The skin test is currently recognised as the most accurate test for Bovine TB infection in cattle. UFU welcomed the introduction of the blood test as a secondary test in new breakdown and chronically infected herds as a means of identifying potential reactors at an early stage of infection. Where the test failed to grasp the confidence of farmers was in the identification of significant numbers of false positives

and the option whether to remove positive blood test animals or not. If there is better communication of the benefits of using the blood test, in conjunction with the skin test, then there is clear merit in using it as a means of disease detection.

ix. **Adequacy of current isolation, cleansing and disinfecting requirements:** Whenever disease has been detected on a farm the complete isolation of reactor animals can often pose major logistical problems. If there are large numbers of reactors, or where reactors are milking dairy animals, isolation from the rest of the herd can be virtually impossible. UFU continually presses DARD to ensure that the process of notifying reactors to the database, valuation and removal of such animals is done in the shortest time possible – the timescale for this has shortened but we believe there is still room for improvement. After a herd has tested clear of TB there is often a requirement placed on farmers to cleanse and disinfect premises before the herd restrictions are lifted – in many situations such a requirement is impossible with other stock housed (during the winter months) and it is the opinion of UFU that more practical consideration needs to be given to what is achievable on farms with the C&D requirements.

x. **Current compensation arrangements for herdowners:** UFU has consistently supported the policy of fairly compensating herdowners for removed animals at their market value. The net result of a herd breakdown can be real hardship for a farm business, not just in terms of the removed animal (which can be the result of years of breeding), but the ensuing consequential losses which can arise from restrictions preventing the sale of animals (other than direct for slaughter). UFU would not wish to see any changes to market value compensation for removed animals particularly when the current TB control programme does not recognise farmer and veterinary concerns regarding the control of TB in wildlife populations.

In concluding UFU welcomes this further opportunity to contribute to your report on the control of Bovine TB in Northern Ireland. We look forward to seeing the finished report when you publish it later this year. In the meantime if you would like to discuss any matters further with UFU please do not hesitate to contact us.

Ulster Farmers' Union
May 2007

Appendix 6: Bovine TB Control and Eradication: The Way Forward

(Executive Summary, paragraph 1.22)

SUMMARY OF THE POSITION OF THE ASSOCIATION OF VETERINARY SURGEONS PRACTISING IN NORTHERN IRELAND (AVSPNI) COMPILED FOR THE NORTHERN IRELAND AUDIT OFFICE

History and context

1. Bovine TB (bTB) is endemic in the cattle population throughout the island of Ireland and, in the past, presented a high level of risk to the human population via the consumption of unpasteurised milk and the intimate proximity of a large proportion of the population to their cattle on family farms. In the present day, bTB does not infect a large number of people due to the pasteurisation of milk, a continuous control programme based on the tuberculin skin test and the improved health and nutrition status of the human population. Nevertheless, a number of bTB cases are reported each year in humans and it would be unwise to be complacent given the inexorable increase in human TB in the population partly due to the increasing number of people whose immune response is compromised by concurrent retro-viral infection. For approximately fifty years an attempt has been made to eradicate bTB by a combination of the single comparative intradermal tuberculin test and a variable degree of cattle movement control. To date this eradication programme has been unsuccessful. However similar programmes in other countries have met with success. In order to understand why these differing results have been achieved one must not compare the similarities in the campaigns waged against bTB but rather look for the differences which have influenced the outcome.

Northern Ireland - specific circumstances

2. The main factors which have to be addressed if progress is to be made against bTB in Northern Ireland are as follows:

(1) The chequer-board distribution of farm-holdings in NI where a farmer may own a number of smaller out-farms (often as a result of inheriting relatives' farms) which are interspersed with neighbouring holdings. Often these small parcels of land have poor peripheral bio-security, and movement of cattle between the various pieces of land owned by a farmer is undocumented and uncontrolled.

- The system of conacre rental of grazing-land which is prevalent in NI. This is particularly relevant in the situation where a herd has been restricted due to a positive TB test and the farmer runs short of grazing due to the build up of stock numbers on the farm. A solution to this problem is to rent grazing and move cattle (often young-stock) onto it. As the animals concerned do not move to a different herd this movement of cattle to a new location is invisible in terms of the APHIS database.

- The number of occasions on which an individual bovine animal changes ownership and location during its lifetime. Although recent surveys have suggested that the average number of movements has reduced significantly, these studies do not flag up the small number of animals who are moved a very large number of times.

- The known limitations of the skin test; like other tests, the skin test may not detect the disease in its earliest stages. This may account for some otherwise inexplicable herd breakdowns.

- The presence, in the form of the badger, of a parallel mammalian population living in intimate proximity to the cattle population, which harbours a self-maintaining endemic infection of bTB. Even if bTB were eradicated from the cattle population now it would not affect the level of infection in the badger population (possibly as high as 40%) as this is now self-maintaining. In a situation such as currently exists in NI where no attempt has been made to control bTB in badgers through culling or vaccination, this wildlife reservoir of infection will constantly spill over into the cattle population acting as an upstream driver of the infection level in cattle and will render eradication an impossible goal. It should be noted that this is not a unique personal opinion. On 22nd October, subsequent to the meeting between AVSPNI and the NIAO, Sir David King, the UK government's chief scientific adviser, published a report in which he stated that a programme of badger culling could make a significant contribution to the control of bTB, as long as it was accompanied by an effective programme of cattle controls.

- The lack of geographical barriers such as large swathes of urbanisation or mountain ranges, which might compartmentalise the freedom of movement of wildlife thus making, targeted reductions in population more attainable.

AVSPNI Action Plan for the Eradication of bTB

3. The AVSPNI evaluation of the Deloitte Report carried out by BDO Stoy Hayward (this document is already in the possession of the NIAO) contained a number of proposals, which, if implemented, would enhance the effectiveness, and the cost-effectiveness of the bTB Eradication Scheme. These proposals may be summarised as follows:

(1) A bTB Control and Eradication Board should be established consisting of representatives of the four main stakeholders, namely DARD, farm animal veterinary practitioners, AFBI and the farming industry. This will enable the stakeholders to take ownership of the bTB problem and jointly devise and enforce a workable eradication programme.

Appendix 6: Bovine TB Control and Eradication: The Way Forward

(Executive Summary, paragraph 1.22)

(2) The current arrangement whereby PVPs carry out the routine TB tests on their own clients' farms should be maintained. There is little doubt that the establishment of a select list of PVPs who are then randomly allocated tests on other practices' client's farms will result in inefficient use of the available veterinary man-hours at peak testing times. This in turn will result in a backlog of routine tests which will inevitably lead to an increase in reactor herds. To fully appreciate the disastrous effect of delays in routine testing one need only review the effect on the number of reactor herds of the moratorium on testing during the 2000-2001 Foot and Mouth outbreak.

(3) The wealth of local knowledge possessed by PVPs about their clients farms and farming practices should be made use of in an epidemiological analysis of every herd breakdown. This analysis should be carried out by the DVO, the PVP and the farmer.

(4) Within the APHIS database there is a huge amount of information about the individual testing performances of PVPs. This information should be made available to practice principals to enable them to internally audit testing quality.

(5) Although DEFRA regard the quality of TB testing by PVPs in NI as the highest in the UK, AVSPNI fully accepts the necessity for continuous on-farm monitoring of testing standards. In order to enhance the effectiveness and fairness on on-farm monitoring AVSPNI suggests that monitoring teams should consist of a DARD veterinary officer, an AVSPNI representative (possibly a retired senior PVP) and/or a lay person such as a retired police officer or person of similar professional background. This format would enhance confidence in the monitoring process.

(6) The issue of undocumented and uncontrolled movement of cattle between home-farms, out-farms and conacre grazing must be addressed.

(7) Research into the role of the badger in the maintenance of bTB infection in the cattle population in the specific circumstances of NI must be undertaken and the overall bTB eradication strategy must be modified to incorporate the lessons learned. NI is well placed to conduct such research having a cadre of highly trained veterinary scientists locally in AFBI. Culling of badgers in geographically delineated areas such as the Ards peninsula and in bTB chronic hot-spots should be considered along with the feasibility of widespread badger vaccination. It should be noted that experience gained in the successful rabies eradication programme in France demonstrated that the role of the fox as a wildlife vector could be successfully eliminated with vaccination of only 70% of the fox population.

(8) There must be further research into:
   a. The epidemiology of bTB in Northern Ireland and the Republic of Ireland
   b. The development of a successful vaccine for wildlife
   c. Refinement of the Gamma Interferon test (practitioners are currently facilitating this research in conjunction with DARD and AFBI)
   d. The immuno-modulating effects of other infectious diseases on bTB e.g. Bovine Viral Diarrhoea (BVD)

Association of Veterinary Surgeons Practising in Northern Ireland
November 2007

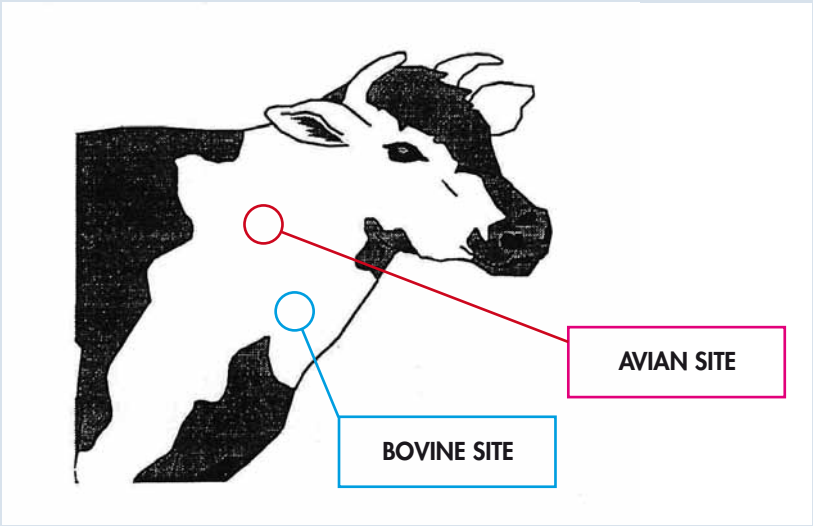
Appendix 7: The Skin Test Procedure: Annual Herd Test (paragraph 2.4)

On Day One of the Skin Test

The Veterinarian undertakes the following test procedure on each animal:

- identifies the animal: checks its official ear tag number and description of age, sex, breed and colour against the herd listing
- examines the animal for skin blemishes or other pathological conditions present at the selected site which might interfere with the skin measurement or the test
- clips the hair twice at the two intended injection sites on the neck of the animal, as shown below, to mark the site (this aids identification of the injection site on Day Four)

Position of Skin Test Injection Sites



- raises and measures the skin-fold thickness at each intended injection site, with callipers and records the measurement in millimetres
- injects, using separate injection guns, Avian Tuberculin (upper site) and Bovine Tuberculin (lower site) so that it is lodged intradermally into the neck skin of the animal
- checks that a palpable nodule is present on the skin (this ensures that the injection has been correctly made)
- ensures that all non-exempt animals on the farm have been presented for testing i.e. recently purchased animals and new calves not yet registered. Any animals not presented must be ascertained from the herd keeper, from his herd records e.g. died or sold, and noted on the testing sheet.

Tuberculin provokes a delayed sensitive reaction in the skin of the animal (in much the same way as a bee sting). If the animal is sensitised to the TB organism, this may produce a localised raised area (swelling) in the skin around the injection site. The response is measured 72 hours after injection i.e. on Day Four.

On Day Four of the Skin Test

The Veterinarian undertakes the following test procedure on each animal:

- confirms the identity of the animal presented (as on Day One) - to ensure same animal presented
- re-measures the fold of skin at each injection site, using callipers, and records the measurements in the testing notebook
- checks for evidence of any other changes (e.g. swelling, heat) and describes the type of reaction observed in the testing notebook
- interprets and records the results of the test
- completes Form BT15
- issues a restriction notice if required e.g. if reactor animal(s) identified
- forwards results on-line to APHIS or on Form BT15 to the Department's Veterinary Office within 7 calendar days for negative results, 2 calendar days for inconclusive results and 1 working day for positive results.

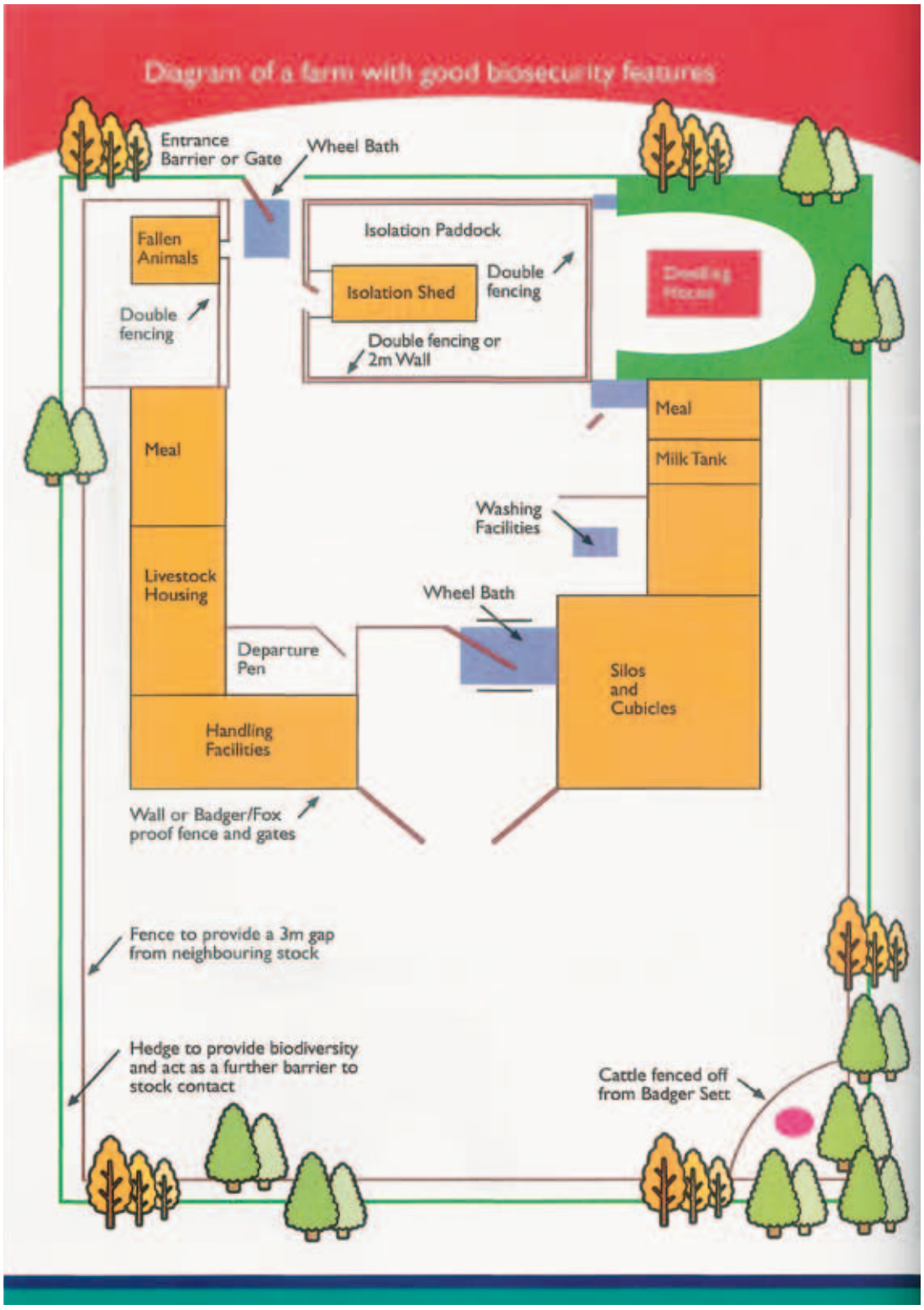
Factors affecting the accuracy (sensitivity) of the Skin Test:

The reaction response by the bovine animal to the bTB skin test at the injected skin sites may vary considerably depending on the individual animal's age and health and the environment. This means that a number of bTB infected tested animals go undetected ('false negatives'). This may involve:

- cattle too recently infected (less than 6 weeks) to be sensitive to the skin test
- cattle desensitised by recent tuberculin administration
- 'anergic' cattle with advanced or generalised bTB
- recently calved cows
- concurrent infection, malnutrition
- immunosuppressive drugs e.g. corticosteroids

False negative results may also occur when the test is not conducted by the Veterinary Surgeon correctly or is not carried out in optimal conditions i.e. in poor weather conditions or when the test is interfered with by the introduction of foreign substances.

Appendix 8: The Biosecurity Code: Features of Good Biosecurity on the Farm
(paragraph 3.7)



Appendix 9: Changes in bTB Annual Herd Testing Movement Procedures (including restrictions) (paragraphs 3.12 and 4.7)

Point in bTB Annual Herd Testing Cycle	Pre-November 2004	From 1st November 2004
At 12 months if test has not been completed	No movement restrictions imposed into, or out of, the herd.	Movements out of herd are restricted after herd overdue 7 days (except moves direct to slaughter, under licence). Animals can still move into herd.
If annual test is 1 month overdue	Herd keeper sent Warning Letter. But no movement restrictions imposed into, or out of, the herd.	No movements into herd (some exceptions e.g. bulls). No movements to slaughter (some exceptions under licence e.g. welfare).
If annual test is 2 months overdue	Herd keeper sent Overdue Letter. But no movement restrictions imposed into, or out of, the herd.	
If annual test is 3 months overdue	Restrictions on animal movements **out** of herd only (except moves to slaughter, under licence). But animals can still move **into** herd.	Herd now requires 2 re-tests, at least 60 days apart, to restore its bTB free status. Herd keeper must pay for second test.
If annual test is 4 months overdue		Enforcement action initiated, which may lead to prosecution.

Appendix 10: Submission of 18 February 2009 to NIAO from the Department
(Executive Summary, paragraph 3)

At the conclusion of our consultations with the Department on the content of this report, there remained a number of matters in the report with which the Department said it either did not agree or considered needed clarification. While NIAO does not endorse the points raised by the Department, we have included them below, for completeness.

Matters within the report that are not agreed between the Department and NIAO

Main Findings and Recommendations

Paragraph Reference	NIAO Main Findings	DARD Comment
3.28 - 3.30	An EU taskforce, in 2000, recommended compulsory pre-movement testing for animals over one year old. Given the risks of infection posed by cattle movement and the costs associated with infection, NIAO considered that this required urgent attention. We note that the Department decided, in June 2007, not to introduce bTB pre-movement testing. However, from Summer 2008, movement of single animals that have missed their annual test are now restricted after 15 months, until they are tested.	The time given in the report for the date of the decision not to introduce pre-movement testing is incorrect. The Department decided in June 2005 not to introduce bTB pre-movement testing for all categories of animals in Northern Ireland, and to consider the possible need to introduce pre-movement testing for single animals that had missed annual herd tests. In July 2006, the Department wrote to stakeholders to advise that it intended to introduce a requirement for all single animals to be tested within 15 months. From July 2008, movement of single animals that have missed their annual test are now restricted after 15 months, until they are tested.
5.29	No differentiation has been made by the Department in the rate of compensation it pays, between cases where bTB was subsequently confirmed and those where it was not. The Department should consider varying the rate of compensation in these circumstances, as an added incentive to disease prevention. We note the Department's comments that this would require a change in legislation.	The wording is misleading as it suggests that differentiation in the disease control programme can be made between cases where bTB is subsequently confirmed and those where it is not. According to the EU rules, all skin test reactors are considered to be affected with TB and must be slaughtered, irrespective of whether disease is subsequently confirmed at post mortem or in the laboratory. The confirmation of disease at post mortem or in the laboratory is not a gold standard.

Part 1: Introduction and Background – Links Paragraphs in Part 2

Paragraph Reference	Main Body of Report	DARD Comment
1.14	In undertaking the 2002 Policy Review, the Department focused on the control of bTB, noting that under its current control programme, its eradication policy could *"no longer be considered anything other than a long-term goal"*. Notwithstanding, in June the following year, the Department expressed the view that *"it hoped that the revised control programme would lead to a further substantial reduction in disease incidence …* [and ultimately to] *…the effective long-term control of bTB"*. This was later qualified, in November 2003, with the Department acknowledging internally that *"in the short term,* [the policy is] *to control bTB, within realistic economic constraints"*.	The Department agrees the use of the first two quotes. The use of "qualified" with reference to the third quote is inaccurate. The internal comment referred to was taken from an internal staff instruction document and was used to reflect the need for resource husbandry. This comment did not change in any way what the Minister said in his June 2003 statement about the aim of the revised control programme.
1.20, 2.10, 2.11, 2.34 and 2.35	The Department's use of the blood test in problem herds, from 2007, is set out at paragraphs 2.9 to 2.11.	The report does not adequately represent the extensive use of the blood test in Northern Ireland since July 2004. The Department started using the blood test in July 2004 in a field trial in problem herds in two TB high incidence DVO areas. In 2005, the test was rolled out in the other TB high incidence DVO areas, and in 2006 it was rolled out NI-wide. This approach was confirmed as part of the NI TB control programme from June 2007. The use of the test in Northern Ireland broadly parallels the work being done in GB and in ROI. In ROI, the test has been used since 2005. In GB, a field trial was carried out between 2002 and 2005, and the test was introduced in October 2006 as part of the control programme.

Appendix 10: Submission of 18 February 2009 to NIAO from the Department
(Executive Summary, paragraph 3)

Part 2: Testing for bovine TB

2.21	In reflecting upon the Department's difficulties in supervising PVPs, the Senior Veterinary Officer commented that, *"Supervision of PVPs is not a popular work area for Veterinary Officers…This has led historically to a low percentage of targets achieved with poor standardisation* [and a] *perceived lack of clear, strong support from headquarters…"* However, he also noted that using two Veterinary Officers had resolved a number of these issues.	The report omits to explain the context for the comments referred to in this paragraph, which is misleading. The wording used suggests that the comments relate to the situation in 2003. The comments were made in the course of the Department's review in 2003 of the improved PVP monitoring and supervision arrangements and refer back to the situation before the arrangements had been introduced, and not to the situation in 2003.

Part 3: Prevention of the Spread of bTB

3.12	**Figure 3.2** indicates that almost one quarter of bTB breakdowns have been caused by purchased infection. Despite this, in 2000, the Department decided there would be little benefit in prohibiting the introduction of purchased cattle into restricted herds because, in its view, few introduced animals subsequently become bTB reactors. In November 2004, the Department did introduce tighter controls over herd tests, including restrictions on the movement of animals where herd tests were overdue - see **Appendix 9**.	There are two different and unrelated scenarios described in the first two sentences in this paragraph. The wording implies that the two are linked, which is incorrect. The second sentence implies that no controls are applied to the movement of cattle into restricted herds, which is incorrect. The approach that has always been taken in Northern Ireland is that an individual assessment is carried out of breakdown herds and the Veterinary Officer decides on movement control restrictions on the basis of risk. Where the veterinary officer considers it is likely that a bought-in animal would become infected, animals are prevented from so moving.
3.23	The Department told us that its research and development contributions have been integral to the evaluation of vaccines in Great Britain and the Republic of Ireland. It also said that it is currently collaborating with a research institute in Denmark to develop a vaccine that will not elicit a skin test-positive reaction (which may avoid an adverse effect on cattle exports).	The Department points out that the research contributions referred to have been made by the Agri-Food and Biosciences Institute (AFBI), which is a non-Departmental Public Body.

3.29 and Appendix 3 – point 15	Despite this, the Department had yet to make a decision on whether or not to introduce bTB pre-movement testing. In 2005 and again in late 2006, the Department undertook work to assess the costs and benefits.	The paragraph omits to indicate the conclusion of these assessments, ie: • in June 2005, the Department decided not to introduce bTB pre-movement testing for all categories of animals in Northern Ireland, and to consider the possible need to introduce pre-movement testing for single animals that had missed annual herd tests. • in July 2006, the Department wrote to stakeholders to advise that it intended to introduce a requirement for all single animals to be tested within 15 months. This information has also been omitted from Appendix 3 – point 15.
3.30	We note the Department's comments that, in June 2007, it decided not to introduce bTB pre-movement testing as all herds are subject to an annual test….	The timing given for the Department's decision not to introduce pre-movement testing is incorrect. The correct timing of the Department's decision is given in the comments made above in respect of paragraph 3.29.

Appendix 10: Submission of 18 February 2009 to NIAO from the Department
(Executive Summary, paragraph 3)

Part 4: EU Matters

4.8 and 4.26	In October 2004, we asked the Department to provide data on the number of animals which had not been tested within the previous 12-month period. The figures for 12 months were not available but the Department told us that around 8,500 (0.5%) had not been tested in 15 months, or longer, including some 3,800 which had not been presented in the previous three years. The Department introduced tighter restrictions on overdue annual herd tests in November 2004. However, a subsequent update of the position, at September 2005, showed that the situation had slipped, with an estimated 13,000 (0.77%) animals not having received a skin test within the previous 15 months (the 12-month figure at this stage was just over 22,600). The Department told us that, at April 2008, the number of individual animals in this category currently stands at 9,500. We note the Department's adjustment to its testing programme (paragraph 3.15) that, since Summer 2008, the movement of animals which have not been tested for 15 months or more is restricted.	This paragraph is in a section that relates to compliance with EU legislation. The paragraph is headed "Overdue Tests on Individual Animals", which suggests that this is an area of non-compliance. This is misleading. The EU Directive lays down the rules regarding testing, and the conditions upon which a herd will retain its official tuberculosis-free status. The obligation to test applies to all animals on a holding and there is no express reference to the testing of individual animals that may have moved between annual tests. This is supported by the Department's legal advice. The reference to overdue annual herd tests in this paragraph is misleading as it suggests that the number of single animals tested is an indicator of the number of annual herd tests carried out, which is incorrect.

Part 5: Compensation, Enforcement and Tackling Fraud

5.29	We were surprised that no differentiation has been made by the Department in the rate of compensation it pays, between cases where bTB has been confirmed (in the laboratory or at slaughter) and those cases where, following a skin-test positive reaction, disease is not subsequently confirmed.	The wording is misleading as it suggests that differentiation in the disease control programme can be made between cases where bTB is subsequently confirmed and those where it is not. According to the EU rules, all skin test reactors are considered to be affected with TB and must be slaughtered, irrespective of whether disease is subsequently confirmed at post mortem or in the laboratory. The confirmation of disease at post mortem or in the laboratory is not a gold standard.

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