

House of Commons

Committee of Public Accounts

**THE 2001 OUTBREAK OF  
FOOT AND MOUTH  
DISEASE**

Fifth Report of Session 2002–03



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*Report, together with  
Proceedings of the Committee, Minutes of  
Evidence and an Appendix*

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## Committee of Public Accounts

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### Footnotes

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# FIFTH REPORT

*The Committee of Public Accounts has agreed to the following Report:*

## THE 2001 OUTBREAK OF FOOT AND MOUTH DISEASE

### INTRODUCTION AND LIST OF CONCLUSIONS AND RECOMMENDATIONS

1. Foot and mouth disease was discovered at an abattoir in Essex on 19 February 2001 and confirmed the following day. The disease spread quickly and in total there were outbreaks in 44 counties and districts and over 2,000 premises were infected. By the time the disease had been eradicated in September 2001, more than 6 million animals had been slaughtered: over 4 million for disease control purposes; and over 2 million for welfare reasons. The nature and scale of the outbreak were unprecedented, partly because the disease was already widely seeded across the country by the time the first case was detected.
2. The direct cost to the public sector of the outbreak is estimated at over £3 billion (Figure 1).

**Figure 1: Cost to the public sector of the 2001 outbreak of foot and mouth disease**

|  | £ million    |
|--|--------------|
| Compensation and other payments to farmers for animals slaughtered | 1,369        |
| Direct costs of measures to deal with the outbreak                 | 1,279        |
| Support measures for businesses affected                           | 282          |
| Cost of government departments' staff time                         | 100          |
| <b>Total</b>   | <b>3,030</b> |

Source: *National Audit Office analysis of Departmental figures*

3. The cost to the private sector is estimated at over £5 billion. Tourism and supporting industries suffered the largest financial impact, losing revenues of between £4.5 billion and £5.4 billion. Agriculture, the food chain and supporting services incurred net costs after compensation of £0.6 billion.
4. On the basis of a Report by the Comptroller and Auditor General<sup>1</sup>, the Committee took evidence from the Department for Environment, Food and Rural Affairs on three main issues: contingency planning for a possible outbreak of foot and mouth disease; the handling of the outbreak; and controlling the costs of the outbreak.
5. Our key conclusions are:
  - The Department based its contingency plans for foot and mouth disease on the assumption that up to ten premises would be infected. In the event, however, at least 57 premises were infected by the time the first case was diagnosed. The plans did not consider any other scenarios, such as a worst case scenario or one based on the last big outbreak in 1967–68. Future plans should be based on an

<sup>1</sup> C&AG's Report, *The 2001 Outbreak of Foot and Mouth Disease* (HC 939, Session 2001–02)

analysis of risks associated with foot and mouth disease and should incorporate a range of assumptions about the nature, size and spread of an outbreak, including a worst case scenario.

- The Department's contingency plans were directed solely at the agriculture industry. Yet the tourism industry suffered much more than any sector and incurred some £5 billion of losses. Contingency plans should not only address farming but also the difficulties likely to be experienced by other industries. Stakeholders in affected industries should be fully consulted about contingency plans; and should participate in the simulation exercises carried out to test them.
- Emergency vaccination was not used during the 2001 outbreak. The Government has announced that the option of vaccination would nevertheless form part of any future strategy for the control of foot and mouth disease. We cannot have a situation again where there is no clear-cut policy on whether and when vaccination is used. The Department's plans on vaccination should be clear and set out the circumstances and factors that would determine when vaccination would be adopted. The plans should be made known and explained to all relevant parties, including farmers, vets, and representatives of the food industry.
- The Department could have done many things differently. For example, it should have imposed a national movement ban from the first day; it should have kept the countryside open and not allowed the blanket closure of footpaths for such a long time; it should have brought senior administrators in earlier to take charge of local disease control; and it should have not disposed of carcasses on mass funeral pyres; but we recognise that we say these things with the benefit of hindsight. These and other lessons need to be incorporated in the Department's plans and processes for any future outbreak of infectious animal disease. The armed services were called in three weeks after the start of the outbreak and made an important contribution to eradicating the disease. One of the lessons from the 1967–68 outbreak was that the earlier the military can be called in the greater their impact will be. The lessons from the value of calling in the armed forces early should have been remembered from the 1967–68 outbreak. But it seems to have fallen out of the collective memory of the Department. Working closely with the Ministry of Defence, the Department should define the military's role and identify the tasks it would carry out in any future outbreak. There should be clear trigger points as to when military support is requested and brought into effect.
- Farmers received nearly £1,400 million in compensation and other payments for their slaughtered animals. The assessed values of animals rose threefold during the crisis, and with no functioning markets, the Department lacked a clear frame of reference to assess or influence the valuations against which compensation was paid. The Department allowed potential recipients of compensation to select and appoint the valuers. In future, systems of compensation to farmers for slaughtered animals need to give firmer control over the amounts paid. The Department needs better benchmarks for determining the rates paid for animals when markets are suspended; and it should not allow potential recipients of compensation to select and appoint the valuers.

- The total bill for measures to deal with the epidemic is expected to reach nearly £1,300 million by the time all claims are settled. The Department was in a weak negotiating position and had to pay a premium to get things done at maximum possible speed. The Department should negotiate pre-arranged rates and fees for goods and services, which could be brought quickly into use in the event of a future outbreak. Claw-back arrangements should be in place to prevent firms making excessive profits at the Department's expense. A list of approved contractors should be drawn up, and kept up to date, and the capabilities of firms to carry out contracted tasks should be tested in simulation exercises.
- The prevention of illegal meat imports is a key measure in avoiding foot and mouth disease. The trade in imported livestock is also high risk and requires special controls. The Department should ensure that the measures adopted in the United Kingdom are at least the equal of those elsewhere in the developed world, including Australia, New Zealand and the United States.
- An internal Departmental Report of February 1999, the Drummond Report, found considerable variations in the State Veterinary Service's readiness to deal with outbreaks of diseases, including foot and mouth. The Report expressed concern that a rapid spread of foot and mouth disease could quickly overwhelm the State Veterinary Service's resources, particularly if a number of separate outbreaks occurred at the same time. The Department had responded to many of the Report's findings but had not resolved a number of key issues, including the slaughter and disposal of carcasses, training of staff, and updating of existing contingency plans. Of 34 recommendations, 27 had been taken forward. However, it was the Department which commissioned the Report. In future, if the Department commissions a report of vital importance affecting animal health they should implement its recommendations and not procrastinate. Implementation of the Report was incomplete because there had been other major priorities for the State Veterinary Service, most importantly the public health issues surrounding Bovine Spongiform Encephalopathy. At the time the risks from foot and mouth disease were considered to be low. The outbreak of classical swine fever in the summer of 2000 had also interrupted implementation of the Report, although it did give a practical opportunity to put some of the Department's ideas into practice.
- In summary, many of the Department's difficulties in handling the outbreak reflect a narrow outlook and lack of contextual awareness. The tendency to focus on farming interests, important as these are, needs to be complemented by greater recognition of wider rural and national concerns. The Department also needs to build stronger and more confident partnerships with other relevant bodies in both the public and private sectors, so as to make better use of their expertise and resources. Longstanding attitudes are in need of reform, and the Department's new development programme for senior managers will need to be radical if the necessary change of outlook is to be achieved.

6. Our detailed conclusions and recommendations are:

#### **On contingency planning for a possible outbreak of foot and mouth disease**

- (i) If a serious outbreak of animal disease is to be brought quickly under control, effective co-operation is needed, not only among government bodies but also among those closely affected on the ground. But the Department did not involve stakeholders in the preparation of its contingency plans. When foot and

mouth disease broke out in 2001, key organisations such as the National Farmers' Union, the Local Government Association and representatives of livestock interests either believed that the Department had no plans for an outbreak of foot and mouth disease or had not seen them. The Department should bring all interested parties on board and discuss its contingency plans with central and local government, farmers and other major stakeholders.

- (ii) Failure by a farmer to report the disease after it had appeared in his pigs contributed to the widespread seeding of the disease and the unprecedented scale of the outbreak. The great majority of farmers take their responsibilities seriously, but there can be no guarantee that all will comply. Contingency plans must therefore take account of the risk of an outbreak not being reported promptly by the farmer concerned.
- (iii) Identification of foot and mouth disease was difficult in the 2001 outbreak, partly because the disease is hard to detect in sheep, the main animals affected, but also because some farmers and vets did not know what symptoms to look out for. The Department should aim for a high degree of awareness of animal disease in the farming industry. It should work with other organisations, including those in the voluntary sector, to educate farmers and vets about diseases they might not have encountered, but which nevertheless present a real risk.
- (iv) The Department is now revising its contingency plans for foot and mouth disease. But foot and mouth is only one of a range of serious animal health diseases and the Department will need to look at all its contingency plans afresh in the light of what happened in 2001.

### **On handling the outbreak**

- (v) A severe shortage of vets prevented the Department from getting on top of the disease in the crucial early weeks of the crisis. The State Veterinary Service cannot be permanently staffed to meet the demands it would face during a serious outbreak of animal disease. The Department needs to decide what measures are needed to increase veterinary resources quickly at the start of any crisis. It should also clarify the basis on which vets recruited from outside would be paid and the terms and conditions on which they would be employed.
- (vi) The Department's computerised database for managing the outbreak—the Disease Control System—contained many basic errors, even locating some farms in the North Sea. These deficiencies delayed identification of the disease on infected farms and increased the time taken to slaughter animals. The Department needs to develop a reliable computer system to enable it to track the progress of any future outbreak of disease and to take swift and effective measures. The system needs to be fully maintained during periods when there are no disease outbreaks.
- (vii) Bio-security measures were insufficient to prevent the spread of foot and mouth disease in 2001 by people, animals and vehicles. In principle there would appear to be merit in the suggestion that the level of compensation for farmers should be linked to the adequacy of biosecurity on their premises, and the Department should consider whether a practical scheme could be devised.

- (viii) A foot and mouth alert in June 2002 centred on a pig that could not be traced to its farm of origin. It is of great concern that, so soon after the devastating problems in 2001, farmers and abattoirs should still be handling unmarked animals. The Department needs to be able to trace all contacts speedily in the event of any future outbreak of animal disease. It should institute effective checks for unmarked animals and penalise those who deal in them.
- (ix) The contiguous cull was controversial because it involved the slaughter of millions of apparently healthy animals. The Department should examine how the contiguous cull was implemented in 2001 and assess its impact and effectiveness, to inform decisions as to whether, and how, a contiguous cull should be used in the event of any future outbreak.
- (x) Seven mass burial pits were constructed at significant expense during the crisis to meet a worst case prediction of the number of animals that might need to be slaughtered. They were used to only one-third of their capacity and their long-term future has yet to be decided. The Department needs to formulate plans for the future of each site, and consult local authorities and residents on its proposals. Continued close monitoring and inspection of the sites in particular is essential.

#### **On controlling the costs of the outbreak**

- (xi) The Department is currently engaged in discussions with the livestock and insurance industries about alternative ways of reimbursing farmers for the costs of having their animals slaughtered. Rather than continue to make direct compensation payments, the Department is considering a subsidised insurance scheme or a joint industry-Government levy scheme. We are glad that these options are being considered since they offer the prospect of substantially reducing the taxpayer's exposure. The Department should report its conclusions to Parliament.
- (xii) The Livestock Welfare Disposal Scheme cost over £200 million in payments to farmers and nearly as much again to run, but failed in its purpose of alleviating animal suffering. The eligibility criteria were difficult to monitor and enforce, and generous payment rates led to the scheme being overwhelmed. Future welfare schemes should have clear objectives and eligibility criteria which can be readily checked. Payments to farmers should be set at a level that encourages applications to be submitted only in respect of genuine welfare cases.
- (xiii) The Department has been withholding payment of £90 million from companies in respect of invoices where it has so far been unable to verify that the work claimed for has actually been carried out. The Department is checking outstanding invoices and seeking supporting documentation. It should seek recovery in those cases where it believes it has been overcharged.
- (xiv) Poor financial controls were exercised by the Department over cleansing and disinfection work, which cost some £300 million in total. The Department had few standards or criteria on how cleansing and disinfection should be carried out, and this lack of guidance led to large variations between regions and significant differences in the costs incurred per farm. Improved guidance should be developed on the standards of cleansing and disinfection to be adopted in the event of any future outbreak.

- (xv) The Department chose to pay for the cleansing as well as the disinfection of farms because it wanted to be sure that the disease would not re-emerge. The Dutch government did not pay for the cleansing of farms and therefore incurred significantly lower costs on this work than the United Kingdom. The Department should examine the Dutch experience to assess the risks and benefits of their approach. The Department should also examine whether in any future outbreak the cost of cleansing and disinfecting could be met by the proposed insurance or levy scheme that is under consideration.

#### CONTINGENCY PLANNING FOR A POSSIBLE OUTBREAK OF FOOT AND MOUTH DISEASE

7. The Department had prepared contingency plans for foot and mouth disease which met European Union requirements. The plans comprised a national contingency plan for Great Britain; local contingency plans; and standing field instructions for veterinary and other staff. The plans were approved by the European Commission in 1993 and had been updated in various ways since then. In the event, contingency plans worked in those areas where there were relatively few cases. But in the worst hit areas, the resources needed to deal with the disease rapidly went beyond what had been envisaged in contingency plans.<sup>2</sup> The Department acknowledged that the plans had proved inadequate for the situation it faced, as the plans of other countries would have done if they had faced the same situation.<sup>3</sup>

#### Scenario planning and wider impacts

8. In line with European Commission guidance, the Department's plans were based on the assumption that there would not be more than ten infected premises at any one time. The Department had not considered any other scenarios because it felt that the risks of foot and mouth disease were low. This was a serious misjudgement. In the event at least 57 premises were infected before the outbreak was discovered and 2,000 premises were infected in total.<sup>4</sup>
9. Little prior consideration was given to the impact that a large-scale epidemic might have on non-farming businesses. The outbreak had a severe impact on the rural economy, with many small businesses that depend on countryside visitors being badly affected. The closure of rights of way, alongside images of the burning and burying of animal carcasses, was widely perceived by the public at home and abroad as meaning that the countryside was closed.<sup>5</sup> The Department acknowledged that, in the light of the experience of the 2001 outbreak, a blanket closure of footpaths in the event of a future outbreak was unlikely.<sup>6</sup>

#### Consultation with stakeholders

10. The Department had not consulted other key stakeholders about its contingency plans, such as government departments, local authorities and representatives of farmers and the veterinary profession, though stakeholders had been involved in a number of simulation exercises to test contingency plans, and a large number of local authorities had been involved in the development of local contingency plans. During the outbreak of classical swine fever in 2000 the Department had held regular meetings with

<sup>2</sup> C&AG's Report, paras 2.7–2.13

<sup>3</sup> Q 172

<sup>4</sup> C&AG's Report, paras 2.30–2.35

<sup>5</sup> Ev 47–49

<sup>6</sup> Q 191

stakeholders. The Department accepted that it needed to have a much more rigorous process of engagement with stakeholders in the preparation and testing of contingency plans.<sup>7</sup>

### **Reporting by farmers of suspected cases of foot and mouth disease**

11. Foot and mouth disease is a notifiable disease and there is an obligation on farmers or their vets to report any suspected cases. In the event of an unreported case, the Department would become aware of the disease only after it had spread, perhaps being picked up in an abattoir or being noticed by a vet on a farm visit. In the 2001 outbreak, the source case on a pig farm was not reported for three weeks, by which time the disease had spread far and wide. The Department's contingency plans did not allow for the possibility of the disease not being reported, nor did the plans consider that the disease might subsequently be spread through sheep, where it would be difficult to detect.<sup>8</sup>

### **Preventing illegal meat imports**

12. The 2001 outbreak of foot and mouth disease was probably caused by the importation of contaminated meat into the United Kingdom. The Government was trying to minimise the risk of illegal imports, and in March 2002 the Department published an action plan on illegal imports. This plan included a risk assessment based on the probabilities of undetected imports, the relevant hazards and the risk pathways. Its success depended crucially on effective intelligence and the sharing of data amongst the various enforcement agencies.<sup>9</sup>

### **Vaccination**

13. Before the outbreak the Department had drawn up detailed instructions for the use of emergency vaccination, but these had not been distributed to local offices. At the height of the outbreak, the Government had accepted that there might be a case for a limited emergency vaccination programme, and the Department had considered protective vaccination in Cumbria and possibly Devon. A European Commission decision would, subject to strict conditions, have permitted the vaccination of certain animals in certain counties, with the vaccinated animals allowed to live. The Government also set further conditions which would have had to be met before vaccination went ahead: there would be no slippage on the slaughter policy; there would be sufficient support from farmers to ensure that vaccination of the vast majority of the cattle involved would be completed within 14 days; and the meat and milk from the animals would find a market. Vaccination did not go ahead because the last two conditions were not met, since the necessary support of farmers, veterinarians, retailers and food manufacturers could not be obtained.<sup>10</sup>
14. In November 2002, in response to the reports of the Royal Society and Lessons Learned Inquiries into the 2001 outbreak, the Secretary of State for Environment, Food and Rural Affairs announced that the option of vaccination would form part of any future strategy for the control of foot and mouth disease.<sup>11</sup>

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<sup>7</sup> C&AG's Report, paras 2.53–2.57; Qq 7–8

<sup>8</sup> Qq 96, 98, 154

<sup>9</sup> Qq 92, 236; Ev 33

<sup>10</sup> C&AG's Report, paras 2.20–2.29; Qq 219–227

<sup>11</sup> HC Deb, 6 November 2002, col 287

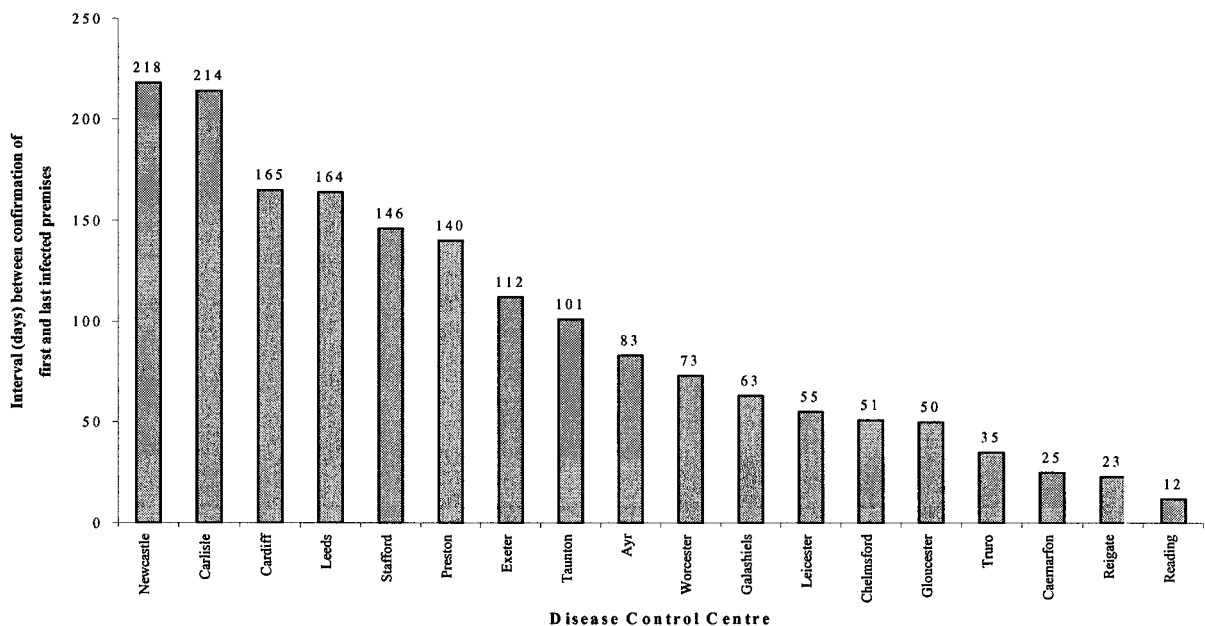
## Preparation of revised contingency plans

15. The Department is revising its contingency plans in the light of experience in 2001. An interim contingency plan had taken account of discussions with stakeholders and other Government departments. After discussions with stakeholders, the plans would be tested by all the interested parties on a regular basis. The Department was also working on the revision of contingency plans for other notifiable animal diseases.<sup>12</sup> In November 2002, in response to the various inquiry reports, the Department published a revised version of its contingency plan on its website for comment and consultation.<sup>13</sup>

## HANDLING THE OUTBREAK

16. Foot and mouth disease was eradicated in two months or less in around half the infected areas (**Figure 2**). The Department was largely successful in containing the outbreak to those areas initially infected with the disease, thereby protecting large areas of important livestock production in adjoining and more distant areas. The Department was also successful in ensuring that once the disease had been stamped out in an area it did not reappear. However, there were severe problems in handling the outbreak in the worst-hit areas.<sup>14</sup>

**Figure 2: Time taken to eradicate foot and mouth disease by Disease Control Centre**



Source: *National Audit Office analysis of Departmental figures*

## National movement ban

17. Preventing the movement of infected animals is a vital element of disease control since direct animal to animal contact is the quickest means of virus transmission. The Department did not impose a national movement ban (and closure of livestock markets) until 23 February 2001, three days after the first case was confirmed. It did

<sup>12</sup> Qq 8, 175, 177: Ev

<sup>13</sup> HC Deb, 6 November 2002, col 286

<sup>14</sup> C&AG's Report, paras 3.4-3.10

not do so earlier because it believed that local movement restrictions would control the disease. A national ban would have been unprecedented, and the Department initially considered that there was no evidence to justify it. One of the Government's academic advisers has estimated that the overall scale of the outbreak might have been reduced by between a third and a half if a national movement ban had been imposed straightaway on 20 February 2001.<sup>15</sup>

18. The Department acknowledged that, had it known on 20 February 2001 that the virus was already active on 57 farms, it would not have waited until 23 February 2001 to impose a national movement ban. Between the identification of the disease and the imposition of the national movement ban, a further 62 premises in seven counties were affected. If the ban had been imposed from the first day, the disease might not have affected those seven counties. However, the national movement ban imposed on 23 February 2001 was widely regarded at the time as a draconian measure, which could cause major welfare and economic problems.<sup>16</sup> The contingency plan now published by the Department is based on the presumption that a national movement ban would be imposed on the day the first case was confirmed.<sup>17</sup>

### Shortage of vets

19. After the disease was confirmed on 20 February 2001, operations were initially directed by the Department's veterinary officers. In many areas they were overwhelmed by the scale of the managerial and organisational role that they had to perform. A severe shortage of vets led to delays in disease control, particularly the identification and slaughter of infected and exposed animals.<sup>18</sup>
20. The Department said that on 23 February 2001 it had activated the International Veterinary Reserve, an agreement between the United Kingdom, Australia, Canada, Ireland and New Zealand to support each other in the event of an outbreak of disease. It had also advertised and requested vets from private practice. However, it had proved difficult to achieve the very rapid increase in the number of vets that was needed; it took time both to recruit them and also to get them mobilised.<sup>19</sup> Many were deterred by what they saw as the low rate of remuneration of £160 a day. The Department therefore increased the daily rate to £250 and backdated the increase to the start of the crisis.<sup>20</sup>
21. The availability of veterinary resources was increased further by relaxing the quarantine periods for vets after visiting infected premises. At the beginning of the outbreak anybody who had been in contact with the foot and mouth disease virus was not allowed on to farms for five days. During the outbreak this period was first reduced to three days, following discussions with the Institute for Animal Health, and then to 24 hours. In Cumbria, which was extremely short of vets, the quarantine period was reduced to overnight. The possibility of vets spreading any disease was remote as they were cleaning and disinfecting as they moved from one farm to another. In the event of another outbreak, the quarantine period would probably be set at between 24 and 72 hours.<sup>21</sup>

<sup>15</sup> C&AG's Report, paras 3.50–3.54

<sup>16</sup> Qq 9, 79–80, 158

<sup>17</sup> Qq 9, 176

<sup>18</sup> C&AG's Report, paras 3.14–3.17, 3.33–3.42

<sup>19</sup> Q 86

<sup>20</sup> Q 87

<sup>21</sup> Qq 123–125

22. The Department said that the number of front line vets had not altered significantly since 1990. Although there had been a significant reduction in the management structure of the State Veterinary Service, the number of field vets had remained stable, varying slightly according to the ease of recruitment. The staffing of the State Veterinary Service would now be reviewed in the light of the various inquiry reports. The Department would also be considering how to increase resources from outside the State Veterinary Service to deal with an emergency.<sup>22</sup>

### **Military assistance**

23. The Department kept the military informed from the outset but did not call for large scale military assistance until mid-March 2001. The armed services went on to play a key supportive role, assisting centrally and locally in the organisational and logistical arrangements, particularly for slaughter, transport and disposal.<sup>23</sup> The Department said that it had initial contacts with the armed services from the outset. Ministers formally notified the Ministry of Defence on 1 March 2001 that they were considering military assistance. But it was only at the beginning of the week of 12 March 2001, when the scale of the disease had become apparent, that the Department identified a clear role for the armed services.<sup>24</sup>

### **Information technology systems**

24. The Department's communications and information systems were severely stretched throughout the epidemic. At the beginning of the foot and mouth outbreak, the Department had developed the Disease Control System, a web based database which could be accessed to add and remove information. A major difficulty with the database was the three-fold problem of identifying animals, owners and land. First, the farm and the land had to be identified, then the owner of the land had to be established and finally the animals had to be located. The Department was actively working with the Rural Payments Agency and others to introduce a system which would provide precise data on the location of each holding. Such a system would however be extremely expensive and complex to develop.<sup>25</sup>

### **Biosecurity and livestock tracking**

25. Biosecurity precautions to minimise the risk of the foot and mouth virus being spread inadvertently are a key element of disease control. They include the thorough cleansing and disinfecting of people, equipment and vehicles by those working on and visiting farms. Strict movement controls also need to be put in place. During the 2001 outbreak foot and mouth disease was spread largely as a result of movements of people, animals and vehicles. Some 78% of foot and mouth disease cases resulted from local spread between infected premises within 3 kilometres of each other, much of which resulted from poor biosecurity.<sup>26</sup>
26. Asked about an unmarked pig with suspected foot and mouth disease which was identified in June 2002, the Department said that the farmer was breaking the law, and

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<sup>22</sup> Qq 163, 264; Ev 47

<sup>23</sup> C&AG's Report, paras 3.24–3.29

<sup>24</sup> Qq 77–78, 82–85

<sup>25</sup> Qq 13–15

<sup>26</sup> Qq 45, 179; Ev 42, para 107

the abattoir should not have accepted it. Ministers were examining urgently with the industry what further action should be taken in the light of this case.<sup>27</sup>

### **The contiguous cull**

27. In mid-March 2001 the Government's scientific advisers provided evidence that the Department was finding it difficult to keep up with the number of new daily outbreaks and was effectively chasing the disease. The advisers warned of an exponential growth in the number of new cases. In the light of this advice, the Department introduced a number of changes, including the slaughter of animals on premises contiguous to infected premises. These changes helped to control the disease but led to the culling of many apparently healthy animals.<sup>28</sup>
28. The Department said that the Government used what it considered to be the best external scientific advice in developing the contiguous cull policy. Animals on contiguous premises would have been exposed to the disease and could have shed virus before clinical signs of the disease became apparent. The scientific advice given to the Government, and shared by the Government's Chief Scientific Adviser, was that the number of cases would continue to increase, perhaps dramatically, unless further action was taken.<sup>29</sup>

### **Disposal and environmental impacts**

29. The most commonly used methods of disposing of slaughtered animals were burning, rendering, landfill and burial. In practice the Department experienced problems with all the methods used. In March 2001 many carcasses were disposed of on mass pyres, but the Department said that it would not use funeral pyres as a method of disposal in the event of any future outbreak.<sup>30</sup>
30. Some 1.2 million carcasses were disposed of at mass burial sites (**Figure 3**). Mass burial was adopted when the disposal problem became very severe, especially after the introduction of the contiguous cull policy. The Department thought it prudent to plan for the worst case scenario, and the total capacity of the sites was about three times that which was eventually needed. The Department was in discussion with local authorities and residents about what should now happen to the sites.<sup>31</sup>

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<sup>27</sup> Q 160

<sup>28</sup> C&AG's Report, paras 3.70–3.81

<sup>29</sup> Qq 39–42

<sup>30</sup> C&AG's Report, paras 3.98–3.100; Q 193

<sup>31</sup> Q 230

**Figure 3: Cost, capacity and use of the mass burial pits**

| Burial site                 | Location                        | Likely total costs to the Department over the life of the site<br>£m | Potential capacity in terms of sheep carcasses (note 1) | Number of carcasses buried |
|-----------------------------|---------------------------------|--|---|----------------------------|
| Great Orton (Watchtree)     | Cumbria                         | 35.1   | 750,000   | 460,000                    |
| Tow Law (Stonefoot Hill)    | County Durham                   | 15.2   | 200,000   | 45,000                     |
| Widdrington (Seven Sisters) | Northumberland                  | 5.1  | 200,000   | 134,000                    |
| Throckmorton                | Worcestershire                  | 22.6   | 750,000   | 133,000                    |
| Birkshaw Forest             | Dumfries and Galloway, Scotland | 10.0   | 1,000,000   | 490,000                    |
| Eppynt (Sennybridge)        | Powys, Wales                    | 18.9   | 300,000   | 0 (note 2)                 |
| Ash Moor                    | Devon                           | 7.0  | 350,000   | 0 (note 3)                 |
| <b>Total</b>                |                                 | <b>113.9</b>   | <b>3,550,000</b>  | <b>1,262,000</b>           |

Source: *National Audit Office analysis of the Department's data.*

Notes: (1) On average a sheep weighed 50kg, a pig 100kg and cattle 500kg. (2) 18,000 carcasses were originally buried at Eppynt but because of seepage problems they were subsequently burnt, along with a further 19,500 carcasses. (3) By the time Ash Moor was opened, the need had passed.

31. Extensive monitoring had been undertaken to evaluate the environmental risks of disposing of millions of carcasses. There had been four significant water pollution incidents but no reports of illnesses. The evidence from monitoring air quality around the mass pyres showed that they posed no additional risk to health through the food supply and no illnesses associated with air quality had been detected. Dioxin levels had been closely monitored and it was unlikely that anyone would have exceeded the tolerable daily intake of dioxins for any substantial period.<sup>32</sup>

#### CONTROLLING THE COSTS OF THE OUTBREAK

##### **Compensation to farmers for animals slaughtered**

32. Farmers are legally entitled to compensation for livestock slaughtered for disease control purposes. The Animal Health Act 1981 requires compensation to be based on the value of the animal immediately before it became infected or was slaughtered. During the 2001 foot and mouth outbreak farmers received over £1.1 billion in

<sup>32</sup> Qq 195–197; Ev 31–33

compensation for animals that were slaughtered for disease control purposes. Professional valuers determined the compensation to be paid. Their valuations tended to rise as more and more animals were slaughtered because they expected the resulting shortage of stock to be reflected in increased prices when the markets reopened. Average compensation values for cattle and sheep tripled during the crisis.<sup>33</sup>

33. There were a number of difficulties in establishing compensation values. Information about the market values of animals was not available after the markets had closed at the start of the crisis. Many animals were being slaughtered at a time when they would not normally be traded. There were therefore no clear benchmarks to determine valuations.<sup>34</sup> Farmers were allowed to select a valuer of their choice. Fees paid to valuers were based on 1% of their stock valuations, with a minimum fee of £500 a day and a maximum fee of £1500 a day. The Department agreed that these arrangements provided an incentive for valuers to over-value but said that there was no evidence of such overvaluation on a systematic basis.<sup>35</sup>
34. It was difficult to overturn the valuations as there was no market to which the Department could refer, and the valuations were done by experts in the type of stock slaughtered. The valuers were able to refer to the history of the stock in question, and had much data on which to base their valuations. The Department had challenged 150 out of 10,000 valuations and found that, apart from one or two where there was obvious concern about collusion, the valuations were well supported by sale documents for similar stock, histories of the stock concerned or parallel information elsewhere in the herd.<sup>36</sup>
35. Standard rates for slaughtered animals were introduced on 22 March 2001 because the valuation process was thought to be delaying the slaughter of animals on infected premises. The standard rates were generous to encourage farmers to use them. The Department expected that at least 70% of farmers would accept the standard rates rather than seek individual valuations. In the event, however, the standard rates were used by only 4% of farmers. They acted as a floor for valuations and contributed to the rise in the amount of compensation paid.<sup>37</sup> The Department had begun to observe an upward creep in valuation levels in April 2001, but had concluded that to change the arrangements at that time would be more likely to complicate matters and risk delaying slaughter. It recognised however that valuation arrangements needed overhauling.<sup>38</sup>

## Insurance

36. Compensation is payable to farmers for animals slaughtered for disease control purposes whether or not the owner has insurance to cover the loss. A number of farmers insure against various diseases, generally to cover the consequential loss of having their animals destroyed, such as the loss of milk or meat production. The Department was not aware of any insurance policies which covered owners for the capital value of their animals. Such cover would be nugatory given the Government's obligation to pay compensation.<sup>39</sup> The Department was actively pursuing ways of

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<sup>33</sup> C&AG's Report, paras 4.5–4.9

<sup>34</sup> Qq 10, 46, 50

<sup>35</sup> C&AG's Report, paras 4.10–4.14; Qq 51, 57, 118

<sup>36</sup> Qq 54–56, 130, 135–136

<sup>37</sup> C&AG's Report, paras 4.16–4.19

<sup>38</sup> Qq 10, 64, 66

<sup>39</sup> Qq 143–144; Ev 30

sharing the financial risk of animal diseases with the industry, whether through subsidised insurance schemes, or a joint industry-Government levy.<sup>40</sup>

### **The Livestock Welfare Disposal Scheme**

37. Farmers received over £200 million for animals slaughtered for welfare reasons. These animals, though not directly affected by foot and mouth disease, had suffered through being confined by the movement restrictions. The payment rates for the scheme were attractive to farmers, and were generally considered to be higher than the likely market price had markets been operating. Because so many claims were received from farmers with modest or no welfare problems, it took much longer than it should have done to process claims from farmers with serious immediate problems. To that extent the scheme failed in its purpose of alleviating animal suffering.<sup>41</sup>
38. The Department had introduced the Scheme as a last resort to deal with the major welfare problems arising when animals could not be moved. The prices had distorted behaviour, however, and had therefore been reduced. Checks on eligibility had been introduced, but there was much subjective judgement involved in determining what was a welfare case and what was not. Eligibility checks were tightened from the beginning of May 2001. Of the rejected applications, none had led to a fraud investigation.<sup>42</sup>

### **Cost and financial control**

39. Large numbers of staff had to be brought together quickly and deployed across the country, and a wide range of goods and services procured to meet urgent demands. The Department recognised that it would have to pay a premium to get things done in such circumstances. The £113 million spent on the construction of the mass burial pits was much more than would have been necessary had the task been less urgent. The Department's weak negotiating position also resulted in it paying excessively for goods and services. For example, it paid up to six times the going rate for land; and valuers, slaughterers and private vets all demanded and received higher fee rates.<sup>43</sup>
40. The Department had introduced various measures to secure value for money. Commercial, legal and procurement advice was available from the centre of the Department, and key procurement and contracting staff had been sent to all the Disease Control Centres. A procurement cell had been set up in the Department's Joint Co-ordination Centre. Quantity surveyors, claims surveyors, forensic accountants, lawyers and claims specialists had been employed. A vigorous programme of internal audit had been implemented to identify and tackle control weaknesses.<sup>44</sup>
41. Nevertheless, cost and financial controls were weak, particularly during the early weeks of the crisis. Many contracts, which would normally be put out to tender, were awarded without competition. Aspects of some contracts were initially agreed orally. When contracts came to be written and formalised it was sometimes difficult for the parties involved to recall the detail of what had been agreed. And information was

<sup>40</sup> Qq 142–145, 182, 240, 248: Ev 30

<sup>41</sup> C&AG's Report, paras 4.22–4.32

<sup>42</sup> Qq 68–71; Ev 29

<sup>43</sup> Qq 11–12; C&AG's Report, paras 4.37–4.48

<sup>44</sup> Q 138

often lacking to support the payment of bills. These problems later gave rise to many disputes about payment for work done.<sup>45</sup>

42. The Department said that it was still engaged in a clear-up exercise in settlement of contractors' claims. It was in commercial dispute with over 20 companies and was withholding payment of £90 million whilst verification and substantiation work was undertaken. In some cases companies had themselves been overwhelmed by the scale of the outbreak and may, therefore, not have kept adequate records. In other cases companies had simply behaved badly and the Department was taking a tough line.<sup>46</sup>
43. The Department intended to identify its procurement needs in the event of another serious outbreak of disease and its contingency plan made provision for greater use of pre-contracting in future.<sup>47</sup>

### **Cleansing and disinfecting**

44. The cost of cleansing and disinfecting farms, amounting to £300 million, was one of the largest areas of expenditure during the outbreak. The average cost per farm was £36,000, but there were wide regional variations. In July 2001 the Department had carried out a review in the light of concerns about the escalating cost of cleansing and disinfecting. The review noted that the Department was not well placed to exercise effective control and was frequently unable to monitor the work being carried out by contractors. The review led to a tightening of controls: no cleansing and disinfecting was to take place without a clear business plan, a statement as to the number of days to be worked, an estimate of the cost of the work and details of who would be undertaking it. The Department had subsequently recovered some £8.2 million out of the total of £9.4 million which it considered it had overpaid.<sup>48</sup>

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<sup>45</sup> C&AG's Report, paras 4.49–4.55

<sup>46</sup> Qq 12, 138–140, 212

<sup>47</sup> Q 113

<sup>48</sup> C&AG's Report, Figure 58; Qq 183–185

MINUTES OF PROCEEDINGS OF  
THE COMMITTEE OF PUBLIC ACCOUNTS

SESSION 2001-02

WEDNESDAY 3 JULY 2002

Members present:

Mr Edward Leigh, in the Chair

|                   |                    |
|-------------------|--------------------|
| Mr Richard Bacon  | Mr Nigel Jones     |
| Mr Ian Davidson   | Mr George Osborne  |
| Geraint Davies    | Mr David Rendel    |
| Mr George Howarth | Mr Gerry Steinberg |
| Mr Brian Jenkins  | Mr Alan Williams   |

Mr Tim Burr, Deputy Comptroller and Auditor General, was further examined.

The Committee deliberated.

Mr Rob Molan, Second Treasury Officer of Accounts, was further examined.

The Comptroller and Auditor General's Report on The 2001 Outbreak of Foot and Mouth Disease (HC 939), was considered.

Mr Brian Bender CB, Permanent Secretary, Department for Environment, Food and Rural Affairs, was further examined; Mr Jim Scudamore, Director General for Animal Health and Welfare, and Chief Veterinary Officer, and Mr George Trevelyan, Director, FMD Operations, Department for Environment, Food and Rural Affairs, were examined (HC 1048-i).

Mr Brian Jenkins declared an interest as having been a Parliamentary Private Secretary at the Ministry for Agriculture, Fisheries and Food during the period under consideration.

The witnesses withdrew.

The Committee further deliberated.

\* \* \* \* \*

[Adjourned until Wednesday 17 July at Four o'clock

\* \* \* \* \*

SESSION 2002–03

MONDAY 3 MARCH 2003

Members present:

Mr Edward Leigh, in the Chair

|                   |                    |
|-------------------|--------------------|
| Mr Richard Bacon  | Mr George Osborne  |
| Geraint Davies    | Mr David Rendel    |
| Mr Frank Field    | Mr Gerry Steinberg |
| Mr Nick Gibb      | Jon Trickett       |
| Mr George Howarth |                    |

Sir John Bourn KCB, Comptroller and Auditor General, was further examined.

The Committee deliberated.

Mr Brian Glicksman, Treasury Office of Accounts, was further examined.

\* \* \* \* \*

Draft Report (The 2001 Outbreak of Foot and Mouth Disease), proposed by the Chairman, brought up and read.

*Ordered*, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 5 read and agreed to.

Paragraph 6 postponed.

Paragraphs 7 to 44 read and agreed to.

Postponed paragraph 6 read and agreed to.

*Resolved*, That the Report be the Fifth Report of the Committee to the House.

*Ordered*, That the Chairman do make the Report to the House.

*Ordered*, That the provisions of Standing Order No. 134 (Select Committees (Reports)) be applied to the Report.

\* \* \* \* \*

[Adjourned until Wednesday 5 March at half past Three o'clock.]



# MINUTES OF EVIDENCE

TAKEN BEFORE THE COMMITTEE OF PUBLIC ACCOUNTS

WEDNESDAY 3 JULY 2002

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Members present:

Mr Edward Leigh, in the Chair

Mr Richard Bacon  
Mr Ian Davidson  
Geraint Davies  
Mr George Howarth  
Mr Brian Jenkins

Mr Nigel Jones  
Mr George Osborne  
Mr David Rendel  
Mr Gerry Steinberg  
Mr Alan Williams

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MR T BURR, Deputy Comptroller and Auditor General, further examined.

MR ROB MOLAN, Second Treasury Officer of Accounts, HM Treasury, further examined.

## REPORT BY THE COMPTROLLER AND AUDITOR GENERAL:

### The 2001 Outbreak of Foot and Mouth Disease (HC 939)

#### Examination of Witnesses

MR BRIAN BENDER CB, Permanent Secretary, MR JIM SCUDAMORE, Director General for Animal Health and Welfare and Chief Veterinary Officer and MR GEORGE TREVELYAN, Director, Foot and Mouth Disease Operations, Department for Environment, Food and Rural Affairs, examined.

#### Chairman

1. Order, order. Welcome to the Committee of Public Accounts. May I also welcome today Dafydd Wigley, Chairman of the Welsh Audit Committee and David Curry the Chairman of the Environment, Food and Rural Affairs Select Committee, who are obviously taking a deep interest in this subject and we are grateful to them for attending. We are considering the Comptroller and Auditor General's Report on the 2001 Outbreak of Foot and Mouth Disease. We also welcome Mr Brian Bender, Permanent Secretary of the Department for Environment, Food and Rural Affairs. Would you like to introduce your colleagues?

(*Mr Bender*) On my left is Mr Jim Scudamore, who is the Chief Veterinary Officer. On my right is Mr George Trevelyan, who was appointed in March of last year as a Director of FMD Operations in our headquarters.

2. Could I ask you to turn to page 33 of the Report and paragraph 2.30? That deals with your contingency plans which were based on the assumption that there would be at most only ten infected premises. You were not prepared for an outbreak on the scale that actually occurred. Would it not have been more prudent to consider a range of different scenarios?

(*Mr Bender*) May I begin by making a point which I suspect we will come back to several times during this afternoon and that is the difference between what we did at the time, knowing what we knew at the time, and what, with the benefit of hindsight, are the lessons learned for the future. I am sure that is a point we shall come back to several times. In our planning we use two scenarios: one moderate and one severe,

each involving ten simultaneous outbreaks. The severe case anticipated a further 49 premises at risk in the protection zone for each of the ten primary cases. That was well beyond recent experience and well beyond expectations by international experts of the disease outbreak in the UK and it was considered very unlikely, especially in the light of other controls which were then in place.

3. But not of course what happened. Were you sufficiently in touch with changes in farming practices, that animals were moving around the country far faster and should you not have been more on the ball and taken this into account and have kept your contingency plans up to date?

(*Mr Bender*) We believed we were in touch with what was going on in farming. Among a number of reasons why this outbreak was unprecedented was the fact that it was present in the country for three weeks unreported and spread through sheep movements. No country had contingency planning for dealing with such a scenario. Indeed I think I am right in saying that the NAO Report quotes the European Commission as saying that it cannot reasonably be expected from any Member State to design a contingency plan for the event of an epidemic causing more outbreaks within months than the ten years' estimate for the whole of the Community.

4. Could I ask you to look at paragraph 2.35 on that same page? This says that your contingency plans did not consider the potential impact of a large-scale outbreak on other countryside users and non-farming businesses. Was this not a monumental error considering that the tourist industry lost about £5 billion? Is this the reason why DEFRA had to be

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MR BRIAN BENDER CB, MR JIM SCUDAMORE  
AND MR GEORGE TREVELYAN

[Continued

**[Chairman Cont]**

created because effectively you were a ministry for farmers in action and not a ministry for the total countryside?

(*Mr Bender*) The first comment I should like to make in reply to that is that the thrust of all countries' contingency plans was disease control and even the Australian plan, which is probably the most widely praised, even though it is being rewritten, only had a single paragraph on the wider effects. The fact is that the impact on the wider rural economy was a result of the scale of what we faced. We had not faced that as an issue in the classical swine fever outbreak. We believe that we did act quickly in the circumstances, but, coming to your last point, there is no doubt that the creation of DEFRA ensures that the rural economic issues will be considered in total within one Department from 8 June last year, as opposed to cross-governmentally.

5. Could you now please turn to page 37 and look at paragraph 2.39? This reveals that in 1999 an internal report expressed concern that a rapid spread of foot and mouth disease could quickly overwhelm your resources. This is exactly what happened in 2001, is it not? Why did you fail to take proper notice of this report, your own report?

(*Mr Bender*) This was indeed an internal report, which the Department sought, received and acted on. The first point I would make is that the risk of disease had not changed during the period preceding, during the report or while the recommendations were being followed up. The international expert Professor Donaldson had said that the probability of a UK outbreak was remote. The second comment is that there were other major priorities for the State Veterinary Service at the time, most importantly the public health issues surrounding BSE. Work was going on at the time on a contingency plan in the event of BSE being found in the sheep flock. The Drummond Report contained 34 recommendations; 27 of them had been taken forward. The outbreak of classical swine fever in the summer of 2000 interrupted that process, though also gave a real time opportunity to put some of the thinking into practice.

6. The fact of the matter was that here you had your own report, giving you a clear warning that you could be overwhelmed and you did not take sufficient notice of it.

(*Mr Scudamore*) The recommendation in context said that if there were a large number of primaries then the State Veterinary Service would have difficulties. It said "if" and it then went on to say what we ought to do about it. At the time, the risks were low, we did not anticipate having a large number of primaries and therefore the report itself, in the context of the time it was given, was at a time of low risk. We did not take that specific item forward any differently to all the other items we took forward.

7. Could you now turn to page 40 and look at paragraph 2.54? This is about consulting stakeholders about your contingency plans and the fact that you did not consult stakeholders about your contingency plans. How could you expect to conduct a joined-up campaign against foot and mouth if other bodies were not party to your plans? In

particular, how could you expect to persuade them to accept vaccination if you had not consulted them earlier about your contingency plans?

(*Mr Bender*) May I say that there were numerous simulation exercises involving stakeholders to test out contingency plans and, as Figure 22 of the NAO Report shows, as it happens more than in any other Member State, as well as discussions in the preceding year with the Environment Agency and the involvement of a large number of local authorities and the development of local contingency plans. It is also the case that we developed during Classical Swine Fever, very regular, at least fortnightly, meetings with stakeholders.

8. You are intimating to the Committee that you were consulting. You have agreed this Report. Paragraph 2.54 says, "However, the national contingency plan and veterinary instructions for foot and mouth disease were prepared by the Department without consultation with other key stakeholders". This is a report which you yourself have agreed. Is that a satisfactory state of affairs?

(*Mr Bender*) There was discussion with stakeholders on simulation exercises. There was discussion with stakeholders such as the Environment Agency in the year before, but I do accept that one of the lessons we have learned from this exercise, which is the point brought out in the paragraph you quote, is the need to have a much more rigorous process of engagement with stakeholders in the preparation and practising of contingency plans than we had had. That is indeed what the Department is now beginning to do through the interim contingency plan which was published recently.

9. Could we now turn to page 56 and look at paragraph 3.50? You will see there that you did not introduce a national movement ban until three days after the outbreak started. Was this the right decision in the light of what we now know?

(*Mr Bender*) In the terms you put that question precisely, then knowing what we now know, which is that on 20 February virus was active on 57 farms, it is not a decision we would repeat. The interim contingency plan we have published says that the presumption for the future would be a national movement ban on the day the first case was confirmed. That is the presumption. That said, at the time, on 23 February, it seemed and was greeted by many people as being, a draconian action which could cause major welfare problems, could cause major economic problems. At the time it seemed draconian.

10. Could we now look at compensation and turn to page 82 and paragraph 4.6? It tells us there that compensation values for cattle and sheep tripled in the early months of the crisis. Why did you not monitor valuations more carefully and take action to limit the rise?

(*Mr Bender*) May I just explain what we think happened, which is that the issues were that market information was available at the start, but not subsequently after markets had closed, that demand increased and supply went down and that a good deal of the stock for which compensation was paid was not normally traded or was destroyed at the stage of

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MR BRIAN BENDER CB, MR JIM SCUDAMORE  
AND MR GEORGE TREVELYAN

[Continued

**[Chairman Cont]**

the life-cycle when they would not be traded, so prices could be expected to be higher than at other times. The essential policy background to the valuation process was that it must not jeopardise rapid slaughter because rapid slaughter would reduce the overall costs of dealing with the disease. This needed farmer co-operation. The legislation required the value to be that immediately prior to infection or the time of slaughter.<sup>1</sup> These were arrangements which had worked adequately during the classical swine fever outbreak. The sheer scale of foot and mouth and the closure of all markets meant that there was no benchmark. We therefore introduced the standard rates in March, at the height of the epidemic, when the valuation process was perceived to be delaying slaughter. The policy criterion set by Ministers was that 70% of farmers concerned would readily accept those flat rate valuations and that background was explained to Parliament at the time. In the middle of April we detected what is called valuation creep. Discussions in the subsequent weeks concluded that if we were to change the arrangements at that time, we would be more likely to complicate matters and risk delaying slaughter. The important point in terms of the total cost is that this creep applied to declining numbers of animals being culled because three quarters of the valuations had actually been carried out by the end of April. But, there is a lesson here and a lesson which we have discussed with the National Audit Office about how we secure more effective valuation arrangements in the future. It is interesting that the Dutch have had similar problems with their valuation and we shall need to liaise with them and with EU auditors as well on how we can get more effective arrangements in the future.

11. If we read Part 4, it gives the impression that you were taken for a ride by some contractors. What more should have been done to keep your costs under control?

(*Mr Bender*) We were in exceptional circumstances. We had to act very swiftly. The Report itself notes that this was probably the largest supply chain in peace time since the Second World War. As Accounting Officer, I and Ministers took the view that best value for money was achieved by stamping out the disease quickly. We had an eight point strategy for seeking value for money, which I can run through with the Committee. That includes using internal and external commercial lawyers and claims specialists, quantity surveyors, claims surveyors, forensic accountants.

12. The fact of the matter is that according to this Report, which you have agreed, paragraph 4.47, "... slaughterers could earn nearly three and a half times more in April 2001 than they could in February or March; and fees for temporary vets increased by 50% between February and March 2001". Were you doing enough to keep these costs under control?

(*Mr Trevelyan*) We had all the controls which Mr Bender has instanced in place but clearly we were in a weak market position. It was absolutely essential and everybody knew it was essential that the process we were engaged in should be carried out with the utmost speed. Therefore we did accept that there would be a measure of market response in terms of the prices we were charged. One of the things we had in some way to our advantage was that the invoices for this activity would not be presented until after the work was done and an extremely heavy control has been placed on the payment of those invoices through the forensic accountants and the quantity surveyors. Our colleagues on the procurement side of the Department are still engaged, as the National Audit Office indicates in the Report, in the clear-up exercise in settlement of all those demands on the Department. We were in a weak position at the time, but subsequently we have exercised all the control we can.

**Mr Bacon**

13. May I start with your statement to the Chairman that you were in touch with what was going on? The EFRA Select Committee Report on foot and mouth described your Department as being largely out of touch. In paragraph 22 it said, "... it is difficult to avoid the conclusion that the Ministry of Agriculture, Fisheries and Food (MAFF) was largely out of touch with the modern structures and practices of the agricultural and allied industries, such as the scale of livestock movements, often directly from one market to another. Even simple information such as the names of farmers and the location of farms was apparently not accurately recorded. One vet employed by MAFF during the outbreak reported being sent to 'a pub, a garden centre and several barn conversions ... They had no idea on the number of farms or where they were'. Data apparently placed other holdings in the middle of the North Sea". We are familiar with that from Mr Bowden. Could you revisit your description of your Department to the Chairman as being largely in touch in light of the EFRA Committee's description?

(*Mr Bender*) My recollection is that the Department did not respond in detail to the Select Committee's Report, but intended to give its definitive response in the light of the independent inquiries. There is a difference between understanding what is going on in the countryside and in the farming industry and having the most up-to-date database. As you said, at my last appearance before this Committee, the issue of having the precise data on the location of each holding is an issue which will only finally be tackled through information technology, the Geographical Information System and that is work being undertaken actively. As far as individual stories of people being sent to the wrong place are concerned, in an outbreak of this scale and the devastation which was being wrought in the countryside, it would be astonishing if there had been no errors on the ground and no data errors. Some of the data errors which arose, referred to in the relevant paragraph of the NAO Report about farms in the North Sea, arose in practice because we were

<sup>1</sup> *Note by witness:* Paragraph 3 (2) of schedule 3 of the Animal Health Act 1981 states that: "The Minister shall for animals slaughtered under this paragraph pay compensation as follows—(a) where the animals slaughtered was affected with foot and mouth disease the compensation shall be the value of the animal immediately before it became so affected...."

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MR BRIAN BENDER CB, MR JIM SCUDAMORE  
AND MR GEORGE TREVELYAN

[Continued

**[Mr Bacon Cont]**

recruiting in an urgent situation a large number of overseas vets who were not familiar with the Ordnance Survey system.

14. You mentioned IT. It struck me when I was looking through this. How difficult can it be to have a list of all the farms in the UK and where they are? Your colleague at the last hearing mentioned £130 million being spent on this. I thought to myself, when I was thinking about this: could one not just get a spread sheet and store where they all are? Then I found to my interest a reference to precisely this in the Drummond Report, that a number of staff were complaining that VetNet did not work and staff commented on the use of programmes independent of VetNet which had been developed in individual animal health offices. An example which was quoted was that of a spread sheet on Excel developed for tracking the progress of tracings during an outbreak. The programme was simple to use, comprehensive enough to achieve its aim and did not require inordinate use of resources to develop. Apparently a number of staff expressed enthusiasm for any suggestion that IT could be used more effectively in the context of planning and control. Are you sure you really need to be spending this £130 million? Could you not just do it in a more basic common sense way like your staff appeared to be trying to do locally?

(Mr Bender) Mr Scudamore will answer the specific point about the Drummond Report. The £130 million is the project cost for the electronic payments agency, the Rural Payments Agency, which is a far bigger issue.

15. Forget that then. The main issue is recording where all the farms are in the UK. In Victorian times they would probably have managed it and the same amount of land was probably cultivated more or less. One hundred and fifty years later it is hugely difficult and cannot be done without massive IT. Local staff were reaching for local solutions, were they not?

(Mr Scudamore) Yes, in the classical swine fever outbreak they tried to use Excel spread sheets but we ran into serious difficulties because they are not multi-user and the problem was that you could not transfer the data around. During the swine fever outbreak we developed a Microsoft Access database which again had the same problems, that you could not have multi users. So at the beginning of the foot and mouth outbreak, we developed what was called a disease control system (DCS), which was a web based database where people could access and people could add and remove information. We did develop that but the problem you have raised is the question of farms. It is a threefold problem. If question one is where is the farm and the land, question two is where is the owner of the land, then question three is where are the animals, it is an immense problem to try to get a database. For example, you have pigs in East Anglia, which might be owned by a company based in one part of the country, they might rent the land off a farm in another part of the country and the person looking after the pigs might live somewhere else. The real difficulty we had was actually identifying animals to owners, to land. That would take an extremely expensive and complex computer system which we are working on in connection with RPA and other programmes.

16. Could you say when you received the Drummond Report?

(Mr Bender) The Department received it in 1999.

(Mr Scudamore) Yes, the Drummond Report was commissioned in July 1998 and it was received by the Veterinary Service in February 1999. It was an internal operational report for the Veterinary Service.

17. It says Restricted Management at the top of it. Do you think with hindsight it would have been better if it had been made available to the public? Do you think more might have been done if it had been?

(Mr Scudamore) I am not sure I accept the second part of your question. On the first part of the question—

18. I am sorry, do you mean if it had been published it would not necessarily have meant more would have been done?

(Mr Bender) I do not think it would necessarily have meant more but I accept the underlying point which is that even in an internal report, with recommendations, there is no intrinsic reason why that should not have been made public as part of a modern department which wishes to engage.

19. You said in answer to the very first question from the Chairman that you would be referring to the benefit of hindsight quite a lot in this hearing. This report came out two years before foot and mouth. It refers to the fact that there is no structured approach to contingency planning, the plans have not been updated for years and the fact is that contingency planning has fallen by the wayside. Surely if that had been widely and publicly known, there would have been more pressure on the Department to get its act together, would there not?

(Mr Scudamore) He made comments about contingency planning and during the following year from the time that report was produced, the local contingency plans were updated. We produced a generic contingency plan based on one from Scotland which was circulated to all the divisional managers.

20. Is this the thing referred to on page 37 where you were working your way through the various recommendations?

(Mr Scudamore) Yes; that is correct.

21. Mr Bender, could you say why, even though you have been working your way through them, paragraph 2.41 on page 37 says, "However, the Chief Veterinary Officer expressed his concern that other key issues had not been resolved, some two years after they had been identified by the Drummond Report". The Department had made provision for a model generic emergency plan including guidance on overcoming problems associated with the supply of services and materials. It had not had time to address the slaughter and disposal of carcasses, training of staff in preparedness for an outbreak, the updating of existing contingency plans and epidemiological capacity. They all sound pretty fundamental and you had not done any of them.

(Mr Scudamore) I was expressing my concern to my own staff that these were issues we needed to look at.

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**[Mr Bacon Cont]**

22. Were you expressing your concerns upwards?

(*Mr Scudamore*) No, I was expressing my concern within the State Veterinary Service. What we wanted to do was to see where we had gone in those four areas. On the contingency planning, all the contingency plans were based on a generic plan and in 20 out of the 23 divisions, plans were up to date. They were updated during the year 2000. In terms of training, we have an ongoing training programme and there was continual training of staff. When we had the swine fever outbreak, quite a high proportion of Veterinary Service staff went into East Anglia to work in the centre there and were trained on the job.

23. You were talking about preparedness. Why did you only have a scenario which involved ten outbreaks, one heavy, one light, one severe?

(*Mr Scudamore*) It will take quite a lot of explaining but it is based on the level of disease in Europe during the period 1980 to 1999.

24. How many outbreaks have there been of foot and mouth in the UK in the last 50 years?

(*Mr Scudamore*) I cannot give you the exact figure.

25. Roughly.

(*Mr Scudamore*) There were 2,300 in 1967 and from 1967 until this outbreak began there was one on the Isle of Wight and one on Jersey.

26. That was just an isolated incident.

(*Mr Scudamore*) That was an isolated incident spread from France.

27. You do not make contingency plans on this scale from an isolated incident, do you? You make contingency plans for a major outbreak.

(*Mr Scudamore*) No, you make contingency plans on the grounds of what you expect.

28. On the basis of experience, the only thing you really have to go on is 1967, is it not?

(*Mr Scudamore*) On the basis of experience what we had to go on was what had happened in the UK before 1967, what was happening in Europe in the 30-year period from 1967.

29. What about 1967 itself?

(*Mr Scudamore*) Nineteen sixty-seven was unique in that it was an outbreak caused by the importation of Argentinian lambs which was seeded into about 26 farms at once. All the other outbreaks we had prior to that were due to sporadic incursions either in meat or from the continent.

30. Yes, but is not the whole point of doing contingency planning—scenario planning as it is called—that you provide for various different possibilities including the worst case scenario. Everyone is familiar with the phrase “the worst case scenario” are they not? Based on what we knew, the worst case scenario would surely have been 1967, would it not? Would the worst case scenario have been 1967? Yes or no.

(*Mr Scudamore*) The worst case scenario would have been 1967.

31. On the basis of what you knew about, would the worst case scenario have been 1967 hitherto?

(*Mr Scudamore*) The worst case scenario was in 1967.

32. Okay. So that would have been your worst case scenario. That was a reasonable benchmark to go from, but you completely ignored it. You went for ten cases and you had 57 cases before you even knew there was foot and mouth.

(*Mr Bender*) I think I made the point earlier that the European Commission said that it cannot reasonably be expected from any Member State to design a contingency plan in the event of an epidemic causing more outbreaks within months than the ten-year estimate for the whole of the Community. That was the judgement at the time.

33. I should like to move on. The map on page 15 refers to the way in which the foot and mouth spread by livestock movements. To start with there was an eight-kilometre ban, referred to in paragraph 3.50, “an eight kilometre radius around the first suspect premises (an abattoir in Essex)”. That was Cheale Meats, was it not? Why when the outbreak was first reported, when you knew that the stuff which was going to this abattoir was from all over the country, was there not then immediately a countrywide ban?

(*Mr Scudamore*) When we picked up the disease on 19 February it was in three batches of pigs and those pigs had only arrived in the abattoir on the Friday evening. The pigs had originated from Buckinghamshire, the Isle of Wight and Yorkshire. We assumed, because of the very short period from the time they had arrived, that the disease must have come from one of those three farms. So we put restrictions on the abattoir and we went back to the three farms from which the pigs had originated which were also restricted and we found no disease there. We then started tracing to see where the disease might have come from. At that time we only had disease in pigs in an abattoir in Essex. There was no indication that we had a widespread problem, there was no indication that we had the 57 farms—we only found that with hindsight.

34. Indeed, and it says in paragraph 3.53, “. . . the Department felt that a nationwide ban would not be proportionate”. You would agree with that, would you?

(*Mr Bender*) At the time, yes.

35. After the classical swine fever outbreak which is referred to on page 39, the project team which looked at the lessons to be learned from the classical swine fever, the presentation to your Department, which was in December 2000, presentation to the SVS national management meeting on 5 December, said, and I quote from one of the slides, under the heading Preparedness, “Never look on the bright side in the notifiable disease emergency. Always assume that the worst will happen and then you are pleasantly surprised if it does not”. You had that before the foot and mouth outbreak, did you not? Why did you just ignore that?

(*Mr Bender*) The worst that happened in February of last year was way beyond anyone’s imaginings or the previous worst.

36. Hang on a minute. We have already established that the worst case scenario you knew about was 1967 and your planning was not anything like adequate to cope with that, was it? Was it?

(*Mr Bender*) No.

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**[Mr Bacon Cont]**

37. Okay, I just wanted to establish that it was not. Good. Why did you ignore this? “Never look on the bright side. Always assume that the worst will happen”. You just ignored that, did you not?

(*Mr Scudamore*) We were basing what we were doing on a risk assessment. If one looked at the situation in Europe, there was no indication that we would have a major outbreak of disease, there was no indication from precedent over the previous ten years, that we would have a major outbreak of primary outbreaks and therefore what we were doing was based on our assessment of the risk of us getting an outbreak and it being a multiple foci outbreak.

38. I am not very satisfied with the answer but unfortunately once again I am going to have to move on. I have two minutes to ask about two major areas. The first is contiguous culling. The basis for the contiguous cull was flawed, was it not? The mathematical model you used was flawed.

(*Mr Bender*) The Government would not accept that.

39. But Mr Anderson, who wrote in Nature, Volume 413 in October 2001, he himself said it was flawed.

(*Mr Bender*) The Government used what they considered to be the best external scientific advice to advise on this policy. Animals on contiguous premises would have been exposed to the disease. They shed virus before showing clinical signs of it. They therefore may also be incubating the disease before any tests would show antibodies. Because of the increase in cases at the time, the advice given to the Government from the scientists, shared by the Government’s Chief Scientific Adviser, was that the number of cases would continue to increase, perhaps dramatically, unless further action was taken.

40. May I be clear? You do not accept Professor Anderson’s statement that the mathematical model which was being used was flawed. You do not accept that.

(*Mr Bender*) I am not in a position to comment on what different scientists say. Forgive me.

41. It is Professor Roy Anderson, is it not, who came up with this model?

(*Mr Bender*) The Government’s Chief Scientific Adviser, Professor King, chaired a group of scientists who had no doubt some very challenging discussions and it was on 21 March—

42. Forgive me, I have about 90 seconds left now. I just quote from the article in Nature October 2001, “The newly estimated spatial kernel differed significantly from that previously derived from infectious contacts identified by DEFRA with considerably more long-distance transmission events being predicted. This implies significant biases in the DEFRA contact tracing process”.

(*Mr Scudamore*) There are two issues. There were four mathematical models, one of which belonged to DEFRA. All four models said that we needed to kill the contiguous farms to get ahead of the disease. On the veterinary side we also agreed with that because the next door farms were going down with disease, the disease was spreading before we could stop it. The only way we could get rid of it was to remove the neighbouring farms. It was not just one

mathematical model, there were three or four models which said similar things. The evidence we have was that 50% of the outbreaks occurred within two kilometres of another IP and therefore the way to get rid of it was to have the contiguous cull.

43. Could you say whether contiguous culling was lawful and perhaps you could provide a basis to the Committee in writing for why you think it was lawful, either in terms of case law or in terms of statute or both?

(*Mr Bender*) The Government do believe it is lawful. It was upheld in various court judgements, but I will provide a note.<sup>2</sup>

### Mr Davidson

44. I note from the papers we have been given that the costs of this crisis to the private sector in total were around £5 billion and the costs to the state were around £3 billion. The cost to the agricultural industry in total was only £0.6 billion. How does it come to pass that the people who are responsible for causing all this and making such a mess of the whole thing actually pay least and that the burden falls overwhelmingly on people less able to pay than farmers?

(*Mr Bender*) By answering briefly I do not want to imply that I accept the premise that it was the farmers who made a mess. I can reply to the point you are making which is that as a matter of law, the Government are required to compensate farmers for livestock slaughtered for disease control purposes and therefore that compensation was fed back into that sector of the economy.

45. That is very helpful. I formed the view, perhaps it is because I am an urban Member who does not have any farmers in his constituency, that farmers saw this crisis as an opportunity to make money at the public’s expense and that throughout this Report, there is evidence of farmers having been greedy, grasping and inadequately supervised by yourselves. Does that seem fair?

(*Mr Bender*) This was a crisis which devastated rural communities and many farmers and caused enormous stress. However, it is also undoubtedly the case that the disease was spread as a result of movements of people, animals and vehicles and that must therefore have involved some local people inadvertently causing the disease spread.

46. So it was not people coming out from the towns doing this at all, was it? It was all done by people in the countryside themselves. May I turn to paragraph 4.7 because I want to look at the question of compensation? I was thinking here of the parallel with a war situation, because there was a crisis, troops were involved and everything else. That prices rose because of scarcity smacks to me of profiteering, does it not? The levels of compensation paid, from paragraph 4.7 and 4.8, went up because there was a crisis. For those who are involved in paying this money, that does not seem entirely fair and reasonable, does it. It is not the price which was due

<sup>2</sup> Ev 34-44

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**[Mr Davidson Cont]**

to be paid at the beginning of the crisis, but the price which was a market value in the middle of the crisis. Does that not seem absurd to you?

(Mr Bender) It was an extraordinarily difficult situation and we were dealing in many cases with animals whose lives were taken at a time when they would not normally be traded and pedigree stock and when demand was increasing supply went down.

47. Sorry? Demand was increasing because you were killing some of them.

(Mr Bender) That is correct.

48. The fact that you were in a crisis forced the market up so that those who were getting their animals killed then were getting a better price than they would have, had there not been a crisis.

(Mr Bender) That is correct.

49. If that is not profiteering, I find it difficult to imagine what is.

(Mr Bender) The phrase profiteering implies that they were doing it deliberately.

50. I shall come onto that in a moment.

(Mr Bender) We were constrained by the law that the Government are required to compensate for the value of the animal at the time of slaughter and as there was no market value at the time because the markets were not operating—

51. —it was established by valuers. Valuers who were, if I remember correctly, paid a percentage of the value of the animals which were killed and therefore had a direct incentive to value more highly than might otherwise have been the case and were, in some cases paid up to £1,500 maximum a day. That is correct, is it not?

(Mr Bender) That is correct.

(Mr Trevelyan) Yes, that is correct.

52. May I clarify something? In a situation where the Central Association of Agricultural Valuers said that some of the valuations were perhaps over generous, does that not cause you some concern and make you want to go back and re-examine some of these?

(Mr Bender) They said that was true in a minority of cases.

53. 49% just then.

(Mr Bender) We have investigated those and there are clearly lessons for how one handles this sort of situation in the future; something that the Dutch have also had enormous difficulties with.

54. This minority, which could have been up to 49%, of situations where the stock which was killed was over valued, the system was open to abuse and as far as I can recollect from the report I saw, even the NFU admitted that there was the possibility of abuse and then their members went on to abuse it. Does that seem a reasonable assessment?

(Mr Trevelyan) We had the system under constant surveillance at the time that the data started coming through. There was a backlog as the valuation certificates came into the Department. Then we went through the process of logging them and paying them and we began to observe valuation creep towards the end of April. We put in place a system of challenge, but we had to say—and we say it with all humility—it was extremely difficult to overturn the valuations

given. There was no market to which we could refer. The valuation was done by experts in the type of stock which was being taken. They were referring to the history of the stock in question. They had a great deal of data and it is observed later in the Report that we challenged in 150 of these valuations.

55. Out of how many?

(Mr Trevelyan) We challenged 150 of the valuations out of 10,000.

56. That is not a lot then, is it?

(Mr Bender) Seventeen hundred have actually disputed the valuations the other way round.

57. Yes, I imagine they would. If they saw somebody else getting away with the biscuit, they would say they only had three quarters of a biscuit and they wanted even more. Is it reasonable for me to compare the valuers to estate agents, who clearly have an interest in driving up the price because they were getting paid a percentage of it? Indeed the farmers, as the customers, were able to shop around and pick the valuer who was likely to give them the highest price.

(Mr Trevelyan) That was the situation, but the primary objective was to achieve rapid slaughter. It is extremely difficult to envisage going onto a farm, slaughtering the stock, without the consent of the farmer. That is a virtual impossibility.

58. Is it?

(Mr Trevelyan) He has a legal right to compensation, that compensation has to be based on a valuation. The Government are faced in that situation with two conflicting demands: the taxpayer interest, which is always in front of the public servants who are operating the system; and the operational interest which is that the slaughter must go ahead and must go ahead rapidly. Where that compromise arrives is the valuation.

59. I understand that. You were in a situation where we had a crisis with a communicable disease. You were afraid that unless the mouths of farmers were stuffed with gold they would refuse to allow you onto their farms to kill their stock. Is that seriously what you are saying to me?

(Mr Bender) No, if that was the impression we gave, that was not what we meant to say. Rapid slaughter was of the essence because, not least, rapid slaughter would reduce the overall cost. That needed farmer co-operation. For example, when the standard rate card was introduced, the criteria set by Ministers was that 70% would readily accept those valuations.

60. Are you seriously saying to me that there was a likelihood that unless they got enough money, farmers would not co-operate with actions which were designed to stop this deadly disease in its track, that they would deliberately delay, at the risk of communicating the disease more widely, if they did not get enough money.

(Mr Bender) That is not what we are saying. What we are saying is that there was a balance to be struck between setting the level which would enable rapid slaughter—

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[Mr Davidson Cont]

61. You are repeating your previous answer. You are saying to me that there was a risk that the speed of the whole thing would be delayed by a lack of farmer co-operation if you did not pay them enough.

(Mr Bender) There was a risk of the disease spreading as a result of lack of farmer co-operation. The issues which would encourage farmer co-operation were discussed several times by Ministers as to what would be the most appropriate way of striking this balance.

62. That is a yes, then, is it?

(Mr Bender) The 70% was a criterion set by Ministers as a standard rate card.

63. At one point you introduced a standard rate.

(Mr Bender) Yes.

64. Paragraph 4.17 tells us this was pitched around the highest quartile of market prices—which reminds me of Garrison Keiller’s Lake Wobegon where all the children are above average. So you have a rate here in the top quarter and you still have farmers bidding up from that, taking that as being the starting point and then finding a tame valuer who was prepared to quote their flock or cattle as being worth even more, then, as you so delicately put it, valuation creep emerged. Valuation creep is a euphemism for price gouging as far as I can see. Do you not think that you were just outrageously exploited through all of this?

(Mr Bender) The point I would make about the valuation creep is that three quarters of the valuation had been completed by the end of April. So while the prices were going up, we were talking about a diminishing number of animals.

65. So that is all right then.

(Mr Bender) No.

66. So only a quarter of them gouged us outrageously, the rest only gouged us a bit. Is that what you are saying?

(Mr Bender) I would not want to give the Committee the impression that we thought this was a perfect operation. We were balancing very difficult issues in an unprecedented disease outbreak, where the policy priority was rapid slaughter. There are lessons to be learned. We entirely accept that and we are setting up some studies with the NAO, with the EU auditors, to try to see how one can get the most effective system for the future.

67. Would you accept that one of the lessons would appear to be that farmer co-operation can only be achieved if you give them enough money and all the talk we frequently hear about animal welfare and all sorts of things are just so much hooey.

(Mr Trevelyan) The slaughter takes place within a legal context. We have a right to slaughter animals which are exposed to disease and a duty effectively in order to control the disease. Farmers also have a right to compensation. There has to be a mechanism by which that process proceeds and you cannot have compensation without valuation. That is clear. The difficulty arises in practice when the market is suspended, when the valuers are working in a vacuum and the Department is receiving the prices achieved after the slaughter has taken place. It is an extremely difficult process to control.

68. Indeed it is. May I come on to an even worse set of abuses as far as I can see and that is the livestock welfare disposal scheme. As I understand it, the rates for the animals being put down were generous, they were effectively providing incentives? The system was so generous that it was providing an incentive to farmers to put their flocks and cattle through this scheme rather than keep them and that was why the scheme had to be changed, unless I am mistaken. From paragraph 4.27 we see that there was an overwhelming number of applications, many of which were duplicates. Did the rate at which farmers were prepared to take these huge amounts of money surprise you at all?

(Mr Bender) The scheme was introduced as a last resort to deal with major welfare problems where animals could not be moved, following a precedent set during the classical swine fever outbreak. The demand was influenced by three factors. The size of the restricted areas from where animals could not be moved, the payment rates and the strictness of application of the eligibility rules. The payment rates were set as a policy decision by Ministers with the aim of balancing two sets of concerns. On the one hand —

69. We have much of that already.

(Mr Bender) The answer is that the prices did distort behaviour and therefore the Government acted to reduce them.

70. That is a delicate way of putting it: prices distorted behaviour. Farmers did things that they would not otherwise have done because the money was there. The first mark in paragraph 4.31, “Although 14,000 were accepted, over 3,000 applications . . . were either rejected . . . or later withdrawn”. I am presuming in this that a large proportion of these were effectively fraudulent, because they were not entitled to make the claim, they were not entitled to receive the money, so they were withdrawn or rejected. Have you discussed the parallel with the Benefits Agency, where if people make false claims for benefits which they then either withdraw or have rejected, they are liable to prosecution? Can you tell me whether or not any of these farmers who have sought to abuse the system by making false or exaggerated claims have been charged, prosecuted or had any other action taken against them for this particular area?

(Mr Trevelyan) I think we may be able to answer that question in a moment.<sup>3</sup>

71. That is probably a no. Further down that paragraph it does say, “It is therefore possible that, if farmers provided incorrect information to their private vets” and then the private vets in many cases took the money and provided an assessment which would benefit the farmer, that the farmer could very well have lied to the private vets. Do you have any assessment of the scale of that problem? Then in the next paragraph, where it says very delicately again, “There was also uncertainty over cases where farmers claimed to be in ill health and could not tend their animals. In how many cases were farmers suddenly struck ill and therefore were entitled to make claims but were subsequently discovered not to be nearly as ill after all?”

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(*Mr Bender*) I cannot answer that precise question. We did introduce checks on eligibility. We had the RSPCA advising on what were genuine welfare priorities to help manage what was part of a large crisis.

(*Mr Trevelyan*) One of the exercises of the screening which took place, which was very arduous, was that it was a question of screening for priority. There was a great deal of subjective judgement taking place as to what was a welfare case. For example, there was a difference of view over whether potential welfare or actual welfare was an issue. The RPA had to take decisions on that basis, on an informed basis, taking advice from ADAS and a team of vets. It was not a cut and dried criterion: you are in, you are out. It was against the circumstances of the day: shall we let this pass? There was a great deal of judgement involved.

72. As with benefit claims. Many benefit claims are assessed. Some are clearly fraudulent.

(*Mr Trevelyan*) The criteria in that case would be more hard and fast.

**Mr Davidson:** I am sure that the majority of farmers are not greedy and grasping and did not seek to abuse the system, but the fact that there is a substantial minority who clearly have done so, you must accept causes some doubts in our minds about how well farmers can be trusted to self-police in any way in future.

**Mr Osborne**

73. Could you please turn to paragraph 3.16 on page 46 of the Report? It says there, "On 4 March 2001, by which date there were 69 confirmed outbreaks, the Department advised that 'the likely course of the disease would become clear shortly and it could possibly peak by the end of the week'". Was there not a catastrophic misjudgement by the Department, that the disease was under control in the first couple of weeks when it clearly was not and that led to the massive outbreak which subsequently followed?

(*Mr Scudamore*) The basic situation was that we had the 57 outbreaks which seeded the country and we did not know where or how much disease there was. If you took an incubation period of 14 days, it was quite apparent that if the outbreak started on 19 February we would not know for about 14 days whether we had traced all the animals and got rid of them, or whether we had a major problem. The reason why the Department was advising that the likely course would become clear, was that if you took an incubation period from 20 February, you came to round about 7 March. The view was that we had no idea what was happening, because it was only with hindsight that we have seen where the animals got disease. If you took an incubation period of 14 days, you would not know how much primary seeding had gone on until round about 6 or 7 March.

74. I certainly agree that you had no idea what was happening because the Government were going around saying that the foot and mouth was under control, when it clearly was not. Would you agree with that?

(*Mr Bender*) The circumstances in which Mr Nick Brown made those comments and the terms in which he meant it, he would still uphold. As I understand it, what he was saying at the time was that the controls which were in place, including the movement restrictions, and the other activities, were the right ones. That was what he meant at the time, but it has obviously been much debated since.

75. They turned out not to be because you subsequently introduced all sorts of other controls which were not in place at the time.

(*Mr Bender*) The policy evolved as the disease developed.

76. What I feel, and my constituency was badly affected by foot and mouth, what the people I represent feel, is that your Department did not get a grip on this disease until at least a month after the first outbreak had been confirmed and that many of the errors were made in those initial couple of weeks. Would you agree with that?

(*Mr Bender*) The comment I would make on that is the one I made to the Chairman in the first instance. Knowing what we now know, including the fact that the disease was present on 57 farms on day one, there are things we would have done differently. Knowing what we knew at the time, I believe the Government responded effectively, but plainly, in the circumstances, not effectively enough.

77. By early March it was clear that there were 80 infected premises, so obviously a much larger outbreak than you had ever anticipated. However, it was not until six days later that the Prime Minister said that combatting the disease was the Government's major priority, not until 19 March, a couple of weeks later, that senior MAFF administrators were appointed to the regions, not until 21 March that the vet shortage was tackled by increasing the payments, not until 22 March that the Cabinet Office was put in charge and not until 19 March that the Army was deployed on the ground. It took you weeks to get your act together.

(*Mr Bender*) It was only at the beginning of the week beginning 12 March that the scale of the disease became apparent.

78. To you.

(*Mr Bender*) To the epidemiologists, to anybody at the time and that was the sense of Mr Scudamore's reply to your first question. It was in the course of that week that we identified then the clear role for the Army. The Army got engaged in the days after that, not playing the same role as they played in 1967-68 as it happens. The reinforcements in the form of Regional Operations Directors were deployed a few days later on Monday the 20 out in the main hot spot areas.

79. Let me ask a series of questions about what would have happened if you had done various things earlier. Let me start with a national movement ban. If you had imposed a national movement ban on the same day that the European Union banned exports from the United Kingdom, do you have any idea how much smaller the epidemic would have been?

(*Mr Scudamore*) We do not know how much smaller it would have been. There are some mathematical models which quote figures, but how

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accurate they are is difficult to ascertain. What we can say is that before we knew we had the disease, we had 57 premises in 16 counties affected. Nobody knew those animals were incubating the disease or that they had the disease. We do know that in this particular outbreak the potential spread from each infected premises could be up to eight more premises. If you do a calculation along those lines, it gives a rough idea of how many infected or potentially infected premises we had before we started. We do know from the statistics that between the identification of the disease and the imposition of the national ban, a further 62 premises in seven counties were affected, but those seven counties only had a minimal number of outbreaks. The real problem was already seeded, it was already in the main counties before the 19th.

80. If you had imposed a precautionary national movement ban on the same day that the European Union took the decision to impose a precautionary ban on exports, am I correct in saying that, for example, the markets at Hereford would not have taken place, at Northampton would not have taken place, at Ross-on-Wye would not have taken place, that perhaps those seven counties you talked about would not have been affected? Of course, although the epidemic was small in some of those counties, the impact on the agricultural industry in those counties was very significant?

(Mr Scudamore) I agree that the impact was significant and I agree, with hindsight, that if at the time we had put that ban on, then it would not have gone to those seven counties. We have already said that.

81. I believe a Government academic adviser, Professor Woodhouse, has estimated that the overall scale of the outbreak might have been reduced by between one third and one half if that ban had taken place a couple of days earlier. Would you accept that?

(Mr Scudamore) That is basically a mathematical model. There is a lot of work to be done, to decide what impact the national movement ban would have. We already had 57 premises with potential to spread unwittingly if an animal was incubating and excreting virus and nobody knew about it, it could be spread to other premises. Unwittingly, we do not know, but I agree with you that it is important that we do look at these models and we do find out what the impact would have been so it will allow us in future to decide when we put movement bans on and how we put them on.

82. If the Army had been involved immediately in assisting the Department to cope with the disease on the ground, how much smaller would the outbreak have been?

(Mr Bender) I find that an impossible question to answer. We had initial contacts with the Army from day one. Ministers formally notified the MOD on 1 March that we were considering military assistance, but it was only in the week beginning 12 March that the need was identified for the armed forces as a provider of manpower and equipment because civil contractors and resources were more than sufficient for requirements prior to that. That was the reason why the Army was involved at that time. There is a

lesson from this which the Government accept. Our interim contingency plan triggers initial contact with MOD and the Civil Contingency Secretariat is set up at the centre from the outset and builds on the understanding that the armed forces' made a major contribution to the 2001 epidemic.

83. It is great that you accept it, because actually Government accepted it back in the 1960s in their response to the Northumberland inquiry. They actually said in an internal report on the military involvement in 1967 that they advised that the earlier the military can be pulled in the better, yet it actually took 29 days, an entire month, between the confirmation of the disease and the Army being deployed on the ground.

(Mr Trevelyan) There is a difference through the passage of time, over 30 years since the Northumberland report. The process for engaging the military in civil events had changed and it had been centralised so that it was necessary to go through a process which we had engaged, through ministerial contact and through official contact.

84. Who took the decision not to call in the Army immediately?

(Mr Bender) These were discussions which were taking place within Government, within the Ministry of Agriculture, including with Ministers, and between the Ministry of Agriculture and the centre.

85. So that was a Cabinet decision not to call in the Army immediately.

(Mr Bender) Discussions involving Agriculture Ministers, involving certainly top officials in the Ministry of Defence and involving the Prime Minister. The other point I would make is that the role they eventually played was not the same as the role they played in 1967-68. What they actually did this time was provide logistical and organisational support.

86. I do appreciate that. If you had much more quickly reached the number of temporary vets you eventually reached, how much smaller would the outbreak have been?

(Mr Scudamore) One thing I should like to mention is that on 23 February, we activated the International Veterinary Reserve, which is an agreement we have with Canada, New Zealand, Australia, to support each other in the event of an outbreak of disease. We activated that and we had American vets arriving on about 4 March. We also advertised and requested vets from practice at that time. In many ways, with the vets coming in from practice, it is very difficult to get a very rapid increase in the number of vets; it takes time to get them mobilised and get them available. One of the problems we have said we have was that in wanting to undertake clinical surveillance on contiguous farms and do patrols in the infected areas, by about 15 March we were running very short of vets and by about 20 March we had a real problem with vets.<sup>4</sup>

<sup>4</sup> Note by witness: For further clarity the International Veterinary Reserve also included the Republic of Ireland. There was close contact with the US who also provided many vets during the outbreak.

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**[Mr Osborne Cont]**

87. On 20 March the Prime Minister told the Department to offer what was needed to solve the problem and the next day you increased the rate and almost immediately you rapidly increased the number of vets you had at your disposal. If you had taken that decision to offer a better daily rate earlier in that month, how much smaller would the outbreak have been?

(*Mr Scudamore*) It is very difficult to say. We had already raised the rate. We have a standard rate for routine work and we have an increased rate for notifiable disease work. When we realised that the vets were not available, we then considered raising the rate again to the £250 a day. It is very difficult to say whether that would have had a major impact on the size of the outbreak, because what we were dealing with was already seeded and spread virus.

88. Moving on to slaughter rates, on 23 March a target was announced to slaughter on infected premises within 24 hours. If even by 1 April that had been met and the 48-hour target on contiguous farms, how much smaller would the outbreak have been?

(*Mr Scudamore*) It is very difficult to give figures.

89. Let me assist you. Imperial College have done the work and they say, paragraph 3.89, "... if the '24 hours/48 hours' policy had been fully implemented from 1 April 2001 ... the number of farms culled would have been 30% less ... more than a million animals would have been spared".

(*Mr Bender*) You mentioned in your second question the 48-hour element of that. The 48 hours, as the Report indicates, was not achieved in many cases and that was because of the sheer logistical operational problems, even with all the resources we were deploying through April. It was a very, very demanding target. It was a target which helped boost activity but the point therefore is slightly theoretical.

90. Except that my point would have been that if you had introduced the Army earlier and increased the number of vets earlier, you would have been able to meet the slaughter targets and you would have been able to control the disease. My contention is that if the Government had woken up to the scale of this problem much earlier, if they had brought in the Army as the Northumberland inquiry suggested, if they had increased the number of vets as the Drummond Report had suggested would be a likely problem, if they had met their slaughter targets, then my constituents, thousands of people who have been affected by this disease, would have been spared that misery. You do not accept that.

(*Mr Bender*) The crucial date in all this was 12 March when the scale of the outbreak became apparent for the first time. Plainly there are lessons.

91. May I ask one final question about the future? One of the things which is particularly affecting farmers and livestock markets which I represent at the moment is the 20-day rule which of course was introduced entirely as a result of foot and mouth. There are going to be autumn sales. I believe the Government have said that they are going to wait for the outcome of the two further inquiries which are going to report. That will not happen until July. Can

you tell me something about the 20-day rule, what the future of it is and what those inquiries will have to say for you to keep the rule in place?

(*Mr Bender*) Government are facing a very, very difficult decision, balancing the risk of disease spread in the event of there being any virus around, hence the movement restriction. So the scientific and veterinary advice is on the cautious side for the very sort of reasons you were indicating earlier, as against the economic and practical issues which face farmers. That is a decision which Ministers wish to take as soon as practicable, but think it unwise to take it on the eve of the publication of two inquiries which may say relevant things. I am afraid that is probably the most I can say on this issue. It is certainly at the top of the agenda of Ministers in my Department.

92. What are you doing to stop illegal food imports into this country? When people in this room travel abroad to the United States or indeed other countries in the European Union, when they arrive in the airport they see massive signs saying "Do not bring agricultural produce into this country. It is illegal, there is a fine of X thousand dollar". When you turn up at Heathrow, or Gatwick or Manchester airport there are no such signs. Why is that the case and what are you doing about it?

(*Mr Bender*) We are doing quite a lot. We are talking of risk reduction here. We cannot actually have zero risk of entry. We have an action plan on illegal imports. The most important aspect of it is a risk assessment, working out what the probability of undetected imports is, whether they are infected with one of the relevant hazards, and risk pathways. Effective intelligence and data sharing amongst the various enforcement agencies is crucial. Earlier in the year we extended legal powers to allow enforcement officers to search suspect consignments and personal baggage. We are discussing at European level, after considerable pressure by the UK Government, new proposals on personal imports allowed into the EU. We are piloting a dog detector scheme, we are looking at new technologies. A cross-government review is beginning over the summer on the current machinery of government enforcement structures and, on the publicity point, I believe that Lord Whitty will be launching a new publicity campaign next week.

93. And the signs? When will I see them in the airport?

(*Mr Bender*) There are signs in the airports. We are in very regular discussion with BAA and Customs about how and where to position them. I should say that we have also had 34 targeted exercises at Heathrow and Gatwick that we know of which have been carried out since April of last year.

#### Mr Rendel

94. I think you said that no country had plans for an outbreak which had been present for three weeks before it was noticed. Why did we not notice it for three weeks?

(*Mr Bender*) Because it was unreported and because the main vector animal as it turned out was a sheep. I am advised that it is particularly difficult to detect the disease in sheep, whereas it is more

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straightforward for vets and farmers to detect in cattle and in pigs. The initial farm from which it was unreported, was indeed the pig farm which the recent court case judgement was about.

95. Are you saying that in future we rely, in order not to have such a big outbreak again, on the farmer concerned reporting the fact?

(Mr Bender) There is a combination of self-regulation and the extent to which the Government should look at policing on these issues. The suspect foot and mouth case two or three weeks ago, as Ministers revealed last week, involved an unmarked pig. Ministers are looking now at what more we should be doing in that sector. Getting the balance right between regulating the sector sufficiently and over-regulating it is a very vexed issue.

96. Are you saying that you do not have any current plans then to make sure that in future it does not take three weeks to notice something?

(Mr Scudamore) It is a notifiable disease, so there is an obligation on the farmer or his vet to report it.

97. That has always been true.

(Mr Scudamore) Yes. One of the lessons learned from this is that we are going to have to see how we can continually educate farmers so they are aware of what to look for. We cannot go to farms every day, so we rely on the farmers and their vets to pick up abnormalities and report them to the Government Veterinary Service so action can be taken.

98. What you seem to be saying is that we still are entirely reliant on the farmers and if the farmers do not report a potential case of foot and mouth, then we could once again be in the situation where it takes three weeks before anyone notices it.

(Mr Scudamore) That is quite right. If the farmer does not report it, we would only pick it up when it spreads or when it is picked up in an abattoir or when a vet goes to the farm and sees it, which is why we have to have in place a whole battery of measures, so that if that does happen, then we have movement controls to stop it spreading, then we can react very quickly to deal with it.

99. If it takes about three weeks, you would expect about 57 cases to be infected by the time it is reported, which is what happened this time and could happen again, could it not?

(Mr Scudamore) That might or might not happen. The problem is that every outbreak is entirely different. The strain of virus is different, the species it affects is different. For example, in Taiwan, the virus there affects pigs and it is predominantly a pig problem.

100. What I am trying to get to is whether we have yet got in place any plans. It sounds as though we have not yet got any plans in place. It sounds as though we are currently as much in danger of having another major outbreak as we were when this outbreak started because currently we are still reliant, as we were then, on the farmers reporting an outbreak, because otherwise it will not be noticed until it starts to spread to perhaps as many as 57 different cases before anyone reports a case?

(Mr Scudamore) We are at risk from notifiable disease. We do rely on farmers looking after their animals, identifying if they are diseased, contacting

their vet and reporting it. There is no alternative. We cannot go to farms every day to check them for disease.

101. Given that there was always that reliance on farmers and you were not sure whether farmers were going to report to you or not, given that if farmers do not report, under your current policies and under the policies which were in place at the time, if farmers do not report it could take up to three weeks to notice and a very large number of cases could be infected before it was noticed, how come your only contingency plans relied on there only being ten cases?

(Mr Bender) We have reviewed the contingency plan, in the light of the benefit of hindsight. We published this week a second—

102. Surely when these plans were set out, where you relied on there only being ten cases, you must have known, as you have just admitted, that if the farmers were not to report, it could spread quite widely and for quite a long time, for as long as three weeks, before any case came to light.

(Mr Bender) It was unprecedented that that would happen and the Australian CVO has commented that any country would have struggled under those circumstances. It was a unique occurrence that something like that happened.

103. I am sure you were going to struggle if it did happen. The point was that you did not have any planning in case it did happen. Your plans might have been that you would be struggling and would have to move very quickly, but you had not even thought about it. It seems to me from what you are now saying that you must have known that, because you were entirely reliant on the farmers and because the thing would not necessarily come to light for three weeks, there was at least a reasonable chance that a large number of farms would be infected before the first case came to light.

(Mr Scudamore) No, we did not realise that because in this particular case the pigs had foot and mouth disease and they had lesions and the farmer did not report it.

104. But you must have known that was possible, you were relying on the farmer reporting it. You must know that farmers do not always report it.

(Mr Scudamore) The assumption was that if the farmers had a disease in that number of pigs they would contact their vets and either the farmer or the vet would report it. The fact that it was there for three weeks was quite unprecedented and unexpected. With hindsight it is not unexpected. Even so, if the disease is in pigs or in cattle, it is pretty clinically obvious and one would expect that normally, once the disease was out, it would be reported very quickly.

105. This was the only farm of the 57 on which there were already cattle, pigs or any other animals with lesions that you would have expected the farmer to report.

(Mr Scudamore) This was the farm which had the earliest disease.

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106. No, that was not the question I asked. At the time it was first found, was this the only farm on which the farmers should have realised there was foot and mouth?

(*Mr Scudamore*) I cannot answer that in terms of the number of farms.

**Chairman:** Surely you must know the answer. It is not a very difficult question. Try the question again, Mr Rendel.

107. What I was asking was: on the day that you first had noticed that there was foot and mouth in the country, was the particular farm at which it originated the only farm on which there were animals which had lesions which ought to have been noticed by the farmer concerned?

(*Mr Scudamore*) No, because the farms in Essex had lesions and they were picked up by the OVS in the abattoir and when we visited the farms immediately after we saw the disease in the abattoir.

108. So the original farmer was not the only farmer who failed to report the fact that he had animals which had lesions.

(*Mr Bender*) There is a huge difference, as I am sure you would accept, between a delay of a day or so and a delay of three weeks, which is was totally unprecedented and unexpected.

109. It was not three weeks since the first farmer had had the lesions presumably.

(*Mr Bender*) The pigs had the disease for two to three weeks unreported.

110. Yet it was not in any other farm until one or two days before the final report. Is that what you are saying?

(*Mr Scudamore*) Yes, that is right. What happened was that when the experts from Pirbright went to the farm with the pigs they had disease which was at least 12 days old. The majority of the other 57 farms were incubating disease; that means they had picked up the virus.

111. Are you saying that there was another farm where the disease was at least 12 days old.

(*Mr Scudamore*) No, at the pig farm where the disease originated the experts from Pirbright aged the lesions at at least 12 days. When we talk about the other 56 farms which were infected, they were incubating disease; that means they had the virus but they had not developed lesions.

112. But some of them had lesions.

(*Mr Scudamore*) When we went to Essex, some of them had lesions, yes.

113. You do not seem to have very good plans to make sure that you spot it more quickly in future. What plans do you have over better financial controls, over things like purchase of land and purchase of other resources in future? Have you for example considered taking out options over land so that you have land more quickly available to you if this happens again?

(*Mr Trevelyan*) Certainly the intention is to identify what our procurement needs will be. We had plans prior to the last outbreak but they are being reviewed and the current contingency plan which is published on the website indicates our intention to make more use of precontracting in that area.

114. I am glad to hear that at least. The compensation paid to farmers. Clearly you want to make sure that you can get onto the farms quickly—I fully understand that—in order to carry out the slaughter policy as quickly as possible, so you want the farmers to be co-operative. Would you say that the compensation is really in order to make sure that they get the value of their creature at the time the issue first arises or is it in order to enable farmers to re-stock if they have lost their animals?

(*Mr Bender*) No, it is to get the value at the time of slaughter, or the time of infection. That is what the law requires.<sup>5</sup>

115. That is what the law requires you to pay, but what is the point of that? What is the intention behind that? Is the intention to enable them to re-stock?

(*Mr Bender*) To give them a fair payment for what the state is taking away from them for disease control purposes.

116. You might say if that were really the intention, that the fair reward was what the value would have been had there been no particular problem. In other words the value at the time the disease first became known and the slaughter policy first arose rather than the time after you had already slaughtered a whole lot of cattle or pigs or whatever and the value had therefore risen. Very much a point which has been made before by Mr Davidson.

(*Mr Bender*) We have to abide by the law; maybe we should be reviewing the law, but the law requires the value to be that immediately prior to slaughter.

117. I understand you paid what the law requires. I am merely asking whether you are reviewing the law. It does seem to me that the original purpose probably was to give a fair value and I can understand the logic behind giving a fair value for the beast concerned, but in practice it seems we are giving a value which is inflated simply because they happen to be slaughtered in the middle of what is a major crisis when there is a shortage of animals anyway because a lot of other animals have already been slaughtered.

(*Mr Bender*) I can give two answers to that. The first is that we are reviewing and will consult the NAO and the EU on the lessons for what should happen on valuation in the future. Perhaps coming back to Mr Davidson's earlier question about compensation for farmers, the other is that one of the provisions in the Animal Health Bill would allow for potentially reduced compensation in the event of poor biosecurity by farmers.

118. The values are paid on a percentage of value and paragraphs 4.13 and 4.14 make it clear that there is a concern in the NAO's mind about whether this is really a sensible way of doing it and whether this could push up the stock values because the valuers get a better fee as a result. My understanding from those paragraphs is that the average fee is about £1,250 and the maximum is about £1,500. Clearly there is a margin between what they were getting on average and what they could get if they pushed up the valuations a bit more, a margin of about 20%. They could have over valued the animals by 20% and still

<sup>5</sup> Ref. footnote to Q 10.

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been within their maximum and still got the full 1% value. Does that not involve quite a considerable risk of over valuation as far as the taxpayer is concerned?

(*Mr Trevelyan*) There is clearly some incentive to over value but there is no evidence that that is what they were doing. They certainly did not push it systematically to the ceiling.

119. How would you get evidence if the over valuations were, say, 5%.

(*Mr Trevelyan*) It would be extremely difficult. It has been very difficult to review valuations.

120. So you do not really know whether there was over valuation or not.

(*Mr Trevelyan*) Yes, it has been very difficult operationally to review the valuations because of the independence of the valuer.

121. Are you proposing any change in the law in future to change the way the valuations are done?

(*Mr Bender*) We have had two advisers from ADAS on the compensation paid so that it has enabled us in some cases to go back and challenge and look at particular issues in the course of the last outbreak. For the future, the answer to the question is the one I gave previously: we are looking at the arrangements and how they can best operate in what is a very difficult situation. We are not the only country which has had these problems. The Dutch did too with their outbreak. It is not an easy issue.

122. Paragraph 3.42 says that there was originally a five-day quarantine period for the vets after they had visited an infected premise. This was later reduced to three days, then one day, then overnight. How was that possible? Are you really saying that they would not infect other premises if they stayed away overnight and if so why was that not a decision which was made straightaway?

(*Mr Scudamore*) The five days' interval between visiting infected premises was at the beginning of the outbreak and it was based on precedent, when our staff went to look at foot and mouth disease at the Institute of Animal Health in Pirbright. We had a standard ruling that anybody who had been in contact with foot and mouth disease virus did not go onto farms for five days.

123. Why was that rule first invented?

(*Mr Scudamore*) The rule was as a result of some scientific research at Pirbright, if I recollect, where it demonstrated that people who had been in contact with foot and mouth virus could carry the virus in their nose for a certain period. There was concern that people could spread disease.

124. Why was it later reduced to overnight?

(*Mr Scudamore*) We reduced it in consultation with Pirbright to three days, 72 hours, then to 24 hours, then in Cumbria, where we were extremely short of vets, we reduced it to overnight. At the same time, the vets going from farm to farm were cleaning and disinfecting and the probability of spreading any disease was very remote. It started off by being a standard precautionary five days and we gradually reduced it in consultation with Pirbright, as we needed the vets. If the vets were not getting onto the farms, we were at risk.

125. If we have another outbreak, will the quarantine period be merely overnight?

(*Mr Scudamore*) No, it will probably be somewhere around 24 to 72 hours. It is an issue we need to discuss further with Pirbright. The shorter the quarantine period the lower the risk, the better it is, because we can use the vets more effectively.

126. Absolutely. What about the valuers? Did the length of their quarantine period come down as well?

(*Mr Scudamore*) In most of the cases they were going to infected farms and the quarantines on those particular farms where the animals were being slaughtered did not matter too much because with an incubation period of four to 14 days, if an infected person went on to a farm, the animals were valued, they were killed within 48 hours, then there would be no risk, the disease would not develop and there would be no virus spread.

127. You are saying they did not have the quarantine period for valuers really.

(*Mr Scudamore*) For people going onto infected farms, or going onto farms where the animals were killed within 48 hours, the period was shorter than the time it would take the disease to develop in those animals.

128. My understanding from paragraph 4.14 is that one of the reasons why the maximum was set at such a high rate was that it was acknowledged that valuers would have a period when they could not work, so you had to set a reasonably high maximum for the one day they could. Now what you are saying is that apparently they could work most days, because they were only going back to infected farms, in which case maybe the maximum was set rather higher than it need be.

(*Mr Bender*) I think what is being got at in paragraph 4.14 is that if a valuer wanted to do some other job, not actually go round to value other infected premises but go back to what you might call the day job, in those circumstances, they would need the five days of quarantine.

#### Mr Howarth

129. In advance of today's hearing I spoke to a farmer in my constituency who has not been directly affected by this. He confirmed Mr Davidson's thesis. What he tells me is that essentially there was collusion between valuers and farmers over prices and that they were grossly over inflated. That is anecdotal evidence. I have no direct proof of that. May I refer you to figure 54 on page 85 and the examples. I have to admit I have no knowledge of these particular animals or these matters but what is £48,000 for a pedigree Limousin bull based on?

(*Mr Bender*) These are cases which we did pursue and explore. In this particular case it was an animal from a prize-winning herd built up over 32 years. Therefore when the experts looked at this they did not think that £48,000 was an unreasonable sum of money. The Swaledale ram was valued at its purchase price. The wild boar was from a leading wild boar enterprise in the country which sold as breeding sets and all the animals had been DNA tested to provide a UK benchmark. That is the sort of context for these exceptional values.

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130. Paragraph 4.15 does say, "Some of these cases", presumably referring to those in figure 54 and others, "remain under investigation and some payments have been held up but, to date, no valuations have been reduced". Is that not extraordinary? Surely with so many valuations having been made—the figures involved are quite staggering—is it not amazing that on reflection some of those were reduced?

(*Mr Trevelyan*) Perhaps the only thing we can claim in this area is the value of our scrutiny process. The valuers knew that we were second-guessing the process and the effect we found, when we challenged the valuations was that they were well supported. We were asked by NAO whether there was systematic malpractice and I had to say in all honesty that we found no evidence of systematic malpractice. There were some cases, and there have been one or two valuations under investigation, where there was obvious concern about collusion but essentially the values which we challenged were well supported either by sale documents for similar stock, histories of the stock concerned or parallel information elsewhere in the herd. There was a great deal of differentiation in the livestock industry, which is one of the reasons why the rate card did not work effectively because many farmers could claim that they were not marketing the standard product.

131. Could you explain that better in terms of what would not be a standard product compared to what would be a standard product? How would you differentiate one from another?

(*Mr Trevelyan*) It is mostly a matter of bloodlines, pedigree, particular association with parts of the country. We accepted throughout the epidemic that hefted sheep, for example, those which had been bred onto particular areas of land and could not readily be replaced by sheep imported from other parts of the country, all had particular values. The process of valuation tended to focus on those and clearly the farmer would state the special value of his stock and the valuer would monitor it. The difficulty the Department had was to second-guess that process. Indeed in the process, there is no role for an external valuer. We appointed a reviewing valuer at the centre, but he did not have a legal role in the process.

132. Let me go back to these examples again. Take the £50,000 for a Swaledale ram. Has any work been done in that particular case to see what that particular farmer has done to replace that and what the cost involved in replacing it were?

(*Mr Bender*) May we offer a note? Whether or not we can answer the specific question, we may be able to provide some information to the Committee on replacement issues.<sup>6</sup>

133. I should be very grateful for that but I was not asking for a note. The question I was asking, which is important, was whether any work had been done to ascertain what had happened in any of those cases.

(*Mr Bender*) Some work has been done on what is happening to prices as re-stocking is taking place. I cannot answer the precise question as to what follow-up there may have been in this sort of case. I shall explore that and answer that question subsequently.

134. Do you see the point I am trying to drive at? Presumably the only way you can check whether the point Mr Davidson was making and the anecdotal point my constituent was making are right or wrong is to see what has been done to replace them.

(*Mr Bender*) That would be based on the assumption that they would be replacing them with something similar. On that assumption, that would be a guide.

135. One of you said earlier that one of the things you were doing throughout this whole period as a check against what values were doing, was continual surveillance. Was that of what the valuers were coming up with, or was it something else?

(*Mr Trevelyan*) I was referring to surveillance of the valuation process. When we had the operations directors in the regions, one of their tasks was to review the valuations which were coming through and to seek supporting information if necessary. Perhaps the main thing we can claim is that people were aware that the process was under scrutiny by the operations directors in the areas in which the valuations were coming forward.

136. Could you give me some indication of what things they were looking at in the course of that surveillance?

(*Mr Trevelyan*) The simplest financial check relates to the numbers, the location, the ownership, but beyond that we were looking for justifications where the values were not in the area of the standard rate card. That is where you get into this area of differentiation, the reasons why stock are not regarded as being at the standard values.

(*Mr Bender*) The sorts of questions we are asking elaborate on the criteria the original valuer had used when valuing the animals; what methods, evidence, factors they took into account, any additional information they could provide which would support their valuation. The supporting documentation was then submitted to our valuation adviser, who examined the information provided and we may well, on some occasions, have gone back a second time.

137. I can see that in the case of a valuable animal you would have to seek evidence that that particular animal in that particular farm had some kind of value. However, what would be normal evidence in the case, bearing in mind that the market conditions were such that it was very difficult to form any reasonably scientific basis for what the true value of anything was in those circumstances? What sort of documentation would there be—I hesitate to use the term—for a bog standard normal sheep or a bog standard normal dairy cow or something like that? How would you ascertain that?

(*Mr Trevelyan*) The purchase price the previous year would be one indicator, but also sale price from previous years. Some of these sales are at markets, but some of them are by private contract. One of the difficulties is that where we are operating in the breeding area a lot of the breeding herd is retained and is self-sustaining and is not marketed regularly. So you may be talking about private contract sales between breeders. In that area we have had difficulty on occasion. We have not had powers to require disclosure of information. We have been working on the information which is available. As we have

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described to the NAO, we are clearly concerned that in another outbreak we should not be in this same position, hence the study which we have announced and in which we are hoping to collaborate with the NAO and the European auditors in this area.

138. May I turn to the issue of contractors and refer specifically to pages 97 and 98? The NAO Report accepted in paragraph 4.67, that huge strains were placed on a small but significant number of the Department's systems of financial control and so on. Paragraph 4.61 gives some examples which have been referred to earlier, "In March 2001 the Department had paid £49 an hour for articulated lorries and £60 for eight-wheeled lorries". It goes on to say that these were substantially reduced by 50%. Surely there must have been some idea at the time of what reasonable costs in these circumstances were, if later you could reduce them by 50%. Did somebody right at the beginning not ask what was going on here? This seems to be a rather expensive way of doing it.

(Mr Bender) We were dealing with exceptional circumstances and having to move very swiftly. What we did was identify eight courses of action for trying to secure value for money. We had commercial, legal and procurement advice from the centre of the Department. We ensured that key procurement and contracting staff were sent to all the disease control centres. Other procurement staff travelled across the country to link up the Disease Control Centres. The bigger issues involved senior management centrally. We set up a procurement cell in our Joint Co-ordination Centre. We used quantity surveyors, claim surveyors, forensic accountants, internal and external commercial lawyers and claims specialists. I set up a vigorous programme of internal audit to identify control weaknesses and where they were identified to tackle them. It would be non credible for me to say that no bad bargains were struck. We were acting very swiftly and on an unprecedented scale. It was a huge activity. What I can say is that where, to put it delicately, windows of commercial opportunity had been opened to the taxpayers' disbenefit, we took vigorous action to improve financial controls and we are in dispute with a number of companies now hoping to recoup further money for the taxpayer and withholding payment in many cases along the way.

139. I am glad you said that. In paragraph 4.68 it says that the forensic accountants whom you brought in to look at all of this found "... for over 40% of contractors' invoices, the Department's officials and agents had not been able to confirm that the work claimed for had actually been carried out. The Department was very often unable to rely on time sheets and plant hire sheets provided by contractors". Below that it gives some examples of the sorts of errors found. That is very serious. 40% is a lot of instances for that to happen. I accept that you are disputing those claims, but have any of those contractors been referred to the police for prosecution, because there is obviously an element of fraud going on here?

(Mr Bender) The question I thought you were about to ask was whether we had paid them and the answer is in many cases no. We are withholding £73 million while a lot of verification and substantiation work is undertaken. We are in commercial dispute

with a couple of dozen companies. At the moment a handful of fraud cases is being pursued which is mentioned elsewhere in the Report. I would say that most of these cases are at the level of commercial discussion, potentially commercial dispute, potentially civil dispute. Whether or not any of them will culminate in actions of fraud I could not predict at this stage. If there is any indication of fraud, our own Investigations Branch takes immediate action and we would be in close touch with the police. This is self-evidently an exercise we do take and have to take very seriously indeed.

140. Would you accept that in fact what it appears to indicate is that there has been a systematic attempt on the part of many contractors to rip off your Department?

(Mr Bender) That may be unfair. We are talking about tens of thousands of invoices. In some cases we probably have companies which were themselves overwhelmed and perhaps kept inadequate records. In some cases it probably is the case that they have behaved pretty badly and that is why we are behaving toughly in response to them.

141. Did the forensic accountants find any case where they had over invoiced?

(Mr Bender) May I consult my procurement director who is sitting behind me? Yes, is the answer.

#### Mr Williams

142. A little while ago we had the case involving Mr Bowden before us and amongst his various practices, such as claiming for sites in the North Sea on which he was growing crops, he also indulged in the happy practice of insuring and claiming compensation. Is it a common practice for farmers to insure their stock against this sort of disaster?

(Mr Bender) It is not common; it is not as common as it should be and the question of whether or not the Government should introduce some requirement is under active discussion at the moment, indeed is under active discussion with the industry which finds it controversial and with the Treasury.

143. When you say that it is not common, does it happen?

(Mr Bender) I believe there are some farmers who are insured for this sort of thing.

(Mr Scudamore) Yes, a number of farmers insure against various diseases. They can insure against tuberculosis, some of them had insured against getting foot and mouth disease.

144. When it came to compensation, did you check whether they had had insurance claims before they claimed compensation?

(Mr Scudamore) In general compensation was paid for the value of the animals. If they had taken out insurance, that was generally to cover the consequential loss of having the animals destroyed. Therefore the two were entirely separate. The compensation they were paid was for the value of the animals. The insurance they had taken out was for the losses they would have by not having the animal, such as not producing milk, not producing meat. The two were kept separate and as far as I recollect we did not take into account the insurance.

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145. In that case there is no point persuading them to insure because they are not insuring against the things you were paying for. What is the point?

(Mr Bender) What we are in discussion about at the moment is requiring them in some way either to insure or some joint levy scheme which would require them to insure to save taxpayer money on compensation.

146. In your experience, would insurance be a practice of the very professional farmer at the top end of the range of farming practice or is it scattered throughout the whole range?

(Mr Scudamore) I cannot answer the question. A range of farmers insure. For example, they will insure against tuberculosis. If they have tuberculosis on the farms the animals will be destroyed and they will receive compensation. They will have insurance to cover the losses on the farm. It is variable.

147. So you do not know how many of the 59 farmers who had compensation of over £1 million also had insurance claims and you have not bothered to ask.

(Mr Scudamore) I do not know. It was an issue which was raised but I am afraid I cannot answer it here.

(Mr Bender) We will provide a note to the Committee on this point.

148. I am surprised you do not know that.

(Mr Trevelyan) Our assumption is that because the insurance companies know that the Government policy is to compensate farmers for the value at slaughter, the insurance companies will not provide policies which do the same thing.

149. That is your assumption.

(Mr Trevelyan) That is our assumption.

150. Have you asked an insurer whether your assumption is right?

(Mr Bender) I am afraid I have not come prepared on this. Part of the Department is leading on discussions with the insurance industry and the farming industry about introducing insurance.

151. Do you mean you do not even know and you have not even asked whether they were getting insurance as well as compensation? You not only have not asked the farmers, you have not asked the insurers. You have just assumed that the insurers are not paying. It does not make sense. You cannot have it both ways. If they are insured for something other than the value of the animal, then they would be entitled to the insurance. Therefore the point made by Mr Trevelyan that the insurers would not pay because they were being compensated is wrong. One of you is wrong. Which one of you? Would you like to sort it out between you.

(Mr Bender) We will get a proper answer to this question and give it to the Committee and I apologise that we have not come prepared to do so today.<sup>7</sup>

152. You have paid out a small sum of £1.1 billion in compensation and you come here months and months afterwards and you cannot answer a question which is obvious; at least you can answer a question which is obvious, it is just that you each

answered in a different direction and gave opposite answers. I find that unbelievable. I want an urgent note on this please, certainly within the next two weeks. While the risk of incidents, understandably on EU advice and on experience, is relatively low, had there not been an acceleration—this may be a town dweller's misunderstanding of the way the market has developed—in the mobility of livestock around the country between farms and marts, between marts and the buyers?

(Mr Bender) Yes.

153. While the risk of an incident is low, once there is an incident the risk of its spread is high.

(Mr Bender) Yes, especially at that time of year.

154. How far had you varied your estimates in your contingency plans to take account of the changes in mobility of livestock and mobility of personnel and the vehicles which go onto the farms?

(Mr Scudamore) The contingency plan dealt with the risk we anticipated which was extremely low. It did not deal with the potential that the disease would not be reported for three weeks so that it would be spread and enter the marketing chain through sheep.

155. I understand that and am coming to that in a moment; I do understand that argument. What I am asking is whether you had taken into account that containability was not a much more fluid concept? Had you adjusted your contingency plan in accordance with that or were you still presuming the local contained outbreaks?

(Mr Scudamore) The contingency plan was still presuming the likelihood of ten simultaneous outbreaks and the tracings we would have to do from those outbreaks. If a farm had disease, we had calculated the number of movements and how far we would have to trace those.

156. Then had you varied your statistics, to the extent of the tracings, to allow for the change which has taken place in the nature of the market?

(Mr Scudamore) We had not taken into account the massive movements which took place in February and in October/November in the sheep industry, but we were taking into account the fact that movements occur; movements have always occurred in the country.

157. Yes; that is what I am saying.

(Mr Scudamore) The contingency plan was based on the probability that there would be up to ten simultaneous outbreaks, that there would be tracings and spread from those outbreaks and that those outbreaks would be reported quickly and that we would contain the disease.

158. I understand completely the point you made very early on that contingency plans are on the basis of what you would expect; obviously that is what contingency plans are about. In that respect you are utterly dependent on the honesty of individual farmers. You have been berated for the fact that it took you three days to introduce a national ban, but the farmer was responsible for a delay seven times as long, was he not? I am not trying to defend you here, I would add, but I want to be fair about things. It seems to me that therefore there is a degree of validity

<sup>7</sup> Ev 29-30

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in the argument, that it had had three weeks in which to get beyond traceability. Do not say yes because it is favourable, but say yes if it is factually correct.

(Mr Bender) It happened to be correct and therefore, knowing what we now know, we would have introduced the movement ban on day one. But of course we did not know that at the time.

159. That is right. When they eventually inspected his farm they found that 80% of the stock was infected and he was found guilty of not informing you when he knew that they were infected.

(Mr Bender) Correct.

160. So that really had in the new ultra mobile context of livestock trading, created a situation which you had not come across before. What confidence can you have that the lessons have been learned? Then you referred to the case of the recent scare over the ownership of a pig which was suspected of being infected. Because there was no tracing marking they were only able to narrow the search for the owner down to 17 farms. That is unbelievable irresponsibility, is it not? On whom would the responsibility be laid for ensuring that the animals were marked?

(Mr Bender) Different people would have had some responsibility. The original farmer himself or herself was breaking the law by having an unmarked pig. The abattoir should not have accepted an unmarked pig. So there are different bodies which have roles and responsibilities in this and that is why our Ministers are looking very urgently with the industry at what further action should be taken.

161. Switching quickly, because a lot of the stuff has been covered and we are inevitably going over slightly the same ground, in relation to the problem with the availability of beds, the Drummond Report in its management summary, which was in January 1999, actually said that problems have arisen from lack of staff resources to maintain contingency plans. In addition, a high turnover of administrative staff, together with the dwindling experience as a result of resignation or retirement of experienced veterinary and technical staff, had contributed to decreased confidence in our ability to react when required. That was a warning two years previously that a serious problem was emerging. Why did you not respond in any way, or did you, and explain why it was not adequate?

(Mr Scudamore) Drummond made a total of seven recommendations on training and we took quite a lot of those forward. First of all, we always have in the prospectus, training for new entrant veterinary officers. We did put and require local divisional and regional training of staff as part of the normal IIP process and our normal processes. Local co-ordinators were appointed to the animal health offices. Various training was done for staff and we were putting that in place. We also have a number of training videos, there are various meetings and staff go on continuing professional development. We were putting in place a whole range of things to ensure that staff did receive the necessary training.

162. What is your anticipation in terms of the numbers of vets which will be available say in five years' time? Do you have any idea? Is there any actual programme to achieve a particular figure?

(Mr Bender) May I give two answers to that?

163. You gave two answers to the last one, so I do not see why not.

(Mr Bender) The first is the staff resource needs of the State Veterinary Service itself, which we shall be reviewing in the light of the various inquiry reports. The second is the availability to ramp up resources from outside the SVS to deal with an emergency, where the sort of idea we are working on would be to have a much more rapid ability to have a territorial army type of arrangement straightaway.

164. Those were lessons of two years ago. Mr Osborne referred to one set of lessons you should have learned from the Northumberland Report on the 1967–68 outbreak. In paragraph 4.12 on page 85 it is pointed out that when it came to the question of valuation and the problems my colleagues have all referred to of the scam operated by the valuers, the Report on the 1967–68 outbreak found that prices had risen during the crisis and identified similar difficulties in valuing animals. That Report recommended that senior valuers be appointed to monitor. The Department's standing instructions—instruction not guidance—for veterinary staff envisaged the appointment of senior valuers but in the event no steps were taken by the Department to appoint such valuers until July 2001; that is 33 years later. What happened to the instructions and why did it take 31 years and leave you in the mess you were in when this disaster struck?

(Mr Bender) It is not a satisfactory situation.

165. You have a gift for understatement.

(Mr Bender) It is also not self-evident to us exactly what the role of a senior valuer would be.

166. In that case, why did the Department have it as a standing instruction if it was no use?

(Mr Bender) That may be why the Department did not act on it. We are now engaged in urgent discussions on it and we hope to set up arrangements which would provide a clear role for senior valuers in the next few months.

167. What about the intervening 33 years?

(Mr Bender) I cannot give you a satisfactory answer to that.

168. Why not? You are the Accounting Officer. That is what you are here to do. You signed up to this Report. When you read this, did you not say, "My God. That's my Department"?

(Mr Bender) Yes.

169. You did, but you did not ask why.

(Mr Bender) What happened is not satisfactory.

Mr Williams: It is not satisfactory. Why did it happen? It says it is an instruction. Why? Will we expect another letter? We will have another letter; I do not think we are going to get an answer.<sup>8</sup>

<sup>8</sup> Ev 31

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**Mr Jenkins**

170. First I should like to say that I was a PPS in the Department during this period but “Honest, it wasn’t me guv”. Reading the Report and reading the newspapers at the time, if I were to say that with hindsight we got it wrong or you could have done better, would you agree with that?

(*Mr Bender*) Not in those terms. Since we were facing something totally unprecedented and a lot of international experts have recognised in other countries the problems they would have had, yes, there are lessons as to how to do it in future. We look to the independent inquiries for exactly what those lessons are and the Report of this Committee as well.

171. Would you say that you were caught flat footed on this outbreak? You were chasing the outbreak. You came close to losing the situation and in fact we are lucky to have any animals left in this country.

(*Mr Bender*) I would not accept that we were caught flat footed. I would accept that we were chasing the outbreak because of its totally unprecedented nature and the way we have discussed earlier this afternoon.

172. If you do not accept that your plans were inadequate—

(*Mr Bender*) The plan turned out to be inadequate for a totally unprecedented situation and other countries have said that their plans would have been inadequate too. The answer is yes, but in that context. The plans turned out to be inadequate for the situation we faced, as indeed are the plans of other countries. That is why they are reviewing their contingency plans as well.

173. So they are learning by our mistakes as well.

(*Mr Bender*) They are learning by the devastating experience that people in rural communities in this country went through.

174. I should like you to read your answers—and no doubt you will—very carefully. I have listened very carefully to the crafted words you have used continually justifying the situation we went through. I think a lot of people out there would take some small crumb of comfort if you said yes, we did not have it right this time and we have to do better. It caught us cold. It was unprecedented. It was one of those situations which we should have planned for and we did not and you suffered.

(*Mr Bender*) May I say that there are huge lessons and the Government and my Department will want to look at the various inquiry reports to see how we can ensure that we get it right in the future.

175. Mr Trevelyan, you said we have plans and I am thankful we have plans and no doubt those plans have been improved, given the recent history of the Department. Are these plans which are in place agreed with the major stakeholders? Do we have the local government authorities on board, do we have the NFU on board, is your plan on the web now and do we have local input, availability? Can local vets and local stakeholders put into the plan and make suggestions as to how it can be improved?

(*Mr Bender*) Yes. We published an interim contingency plan in March of this year. It was placed on the web. Within the last few days we have

published a revision of that. We have been in discussion and the revision takes account of discussions with stakeholders and other Government Departments. That plan will not be finalised until we have had a chance to study the various inquiry reports. The short answer to your question is yes.

176. So can you tell me now from your plan, if today some abattoir spots an outbreak, they send a sample off to the laboratory, they flag up a possible outbreak, tomorrow it comes back as positive, when does the national movement ban start?

(*Mr Bender*) The working assumption is that day, the day the first case is confirmed, unless there are particular reasons why it would be inappropriate. The working assumption is the day the first case is confirmed. I should add that we have had 60 or 70 suspect cases since 30 September and in a normal year we have 10 or 12. It would be when the first case is confirmed, but the interim contingency plan works on the assumption that the national movement ban would be on day one of the case being confirmed.

177. Today most farmers know what foot and mouth looks like but in the last outbreak when I was a lad, and I am not expert on what to look for on a day to day basis, I was never going to go round and check all the cattle. In ten years’ time how can you be assured that the awareness is as high amongst farmers as it is today?

(*Mr Bender*) One of the lessons from all this is going to be having plans which do not simply exist, having been discussed with stakeholders, but which are practised by all stakeholders on a periodic regular basis. That would involve an education of farmers and an involvement of farmers locally on whatever is the right period to keep them alive. It may not be foot and mouth next time of course, it may be another disease. We do have a generic plan as the interim one which could be adapted for any circumstances.

178. That is Mr Scudamore’s cue. You have this generic plan to inform livestock owners in this country but how do you ensure that they maintain their awareness and knowledge base? How are we going to attach it to some of the rewards they enjoy in the industry? How do we monitor this?

(*Mr Scudamore*) It is very difficult. How do we get across regularly to farmers and vets what the risks are and what they should be looking for. We have to work with farmers and with vets, both of them. We have to look at how we have an ongoing continual publicity campaign, not just once; already people are forgetting what foot and mouth was like last year. Some people who had not seen it would be forgetting. We have to get that across. We are going to have to look to farm assurance schemes and we are going to have to look at the various schemes on farms to see how we can build in recognition of notifiable disease and disease problems. The difficulty is that as time passes by, there is less and less interest and less and less notice taken of campaigns, so it is very important that it is linked to farm assurance, it is linked to the veterinary profession and somehow the two come together.

179. On incentives, one of the things which always amazes me is that people find it strange that if money is floating around fraud occurs. I think it is a natural law. If money is floating around fraud always occurs

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and that is why we have regulations to contain and stop it. Farmers who were affected by the disease were sometimes farmers who did not get the disease and because of the restrictions placed upon them they suffered the same financial difficulties. I have farmers in my own constituency who I know suffered dreadfully but did not contract the disease. They were not rewarded or compensated in any way. There must have been a tremendous temptation when you see your farm going bankrupt to feel you would be better off contracting the disease. Surely this is the worst type of incentive you can imagine. How do we overcome that?

(Mr Bender) The Government's policy throughout was not to compensate for the consequential losses, whether that was for other rural business or for farmers whose livestock had not been taken, hence your question. The second point is that one of the provisions in the Animal Health Bill would involve a reduced compensation payment for a farmer who had exhibited poor biosecurity. That borrows from an idea the Dutch had and they introduced, though with great difficulty.

180. I am well aware of the difficulties which farmers face. Not all farmers are rogues, though sometimes they are painted as such. We have a lot of good hard-working farmers who take a pride in their stock and I particularly have in mind those who have pedigree herds where young farmers have taken over and have been with this stock all their lives. They have seen the line progress and when that line got wiped out, it wiped out a link and so much hard work that it is difficult to put a monetary value on it. We did have to force monetary values on them. When we said that they were to get the market value, this is a term I find strange, because how do you have a market value if you have no market? How can a sheep go up in value from £100 to £300 for the same sheep which is going to the market, not the breeding stock, not the line, these are the same marketable sheep. The only price we had was the last one. They can show you exactly what they got at the market for their sheep. Surely we should enshrine in our regulations that the price for compensation is the price at the market on the day the outbreak started.

(Mr Bender) That is not what is in the legislation at the moment, as you well realise. It is the value immediately prior to infection.<sup>9</sup>

181. I am very mindful that it says market price, but I am telling you that we do not have a market price and we can establish the market price and it is only by the reticence of your Department to instil some discipline in this industry that we moved away from it. The market price is the price you can get on the day the outbreak started. That is the one we should have imposed on the industry. I am not talking about the breeding cattle which is a different matter and you do not sell them; that is why you get prices for boars and rams by negotiation. A lot of the cattle would have gone to the marketplace and we got hyped by these people.

(Mr Bender) The only answer I can give on that is to repeat the points made earlier, that the review we are carrying out with the NAO, with EU auditors will be intended to devise improved arrangements for the future because it was a very difficult situation.

182. I noticed Mr Williams was on a good track when he asked what compensation is because compensation falls into two brackets here. It falls into the bracket of the market value for the animal, but it also falls into a bracket if that animal produces a stream of income and you can insure against that loss. We should perhaps start by making it quite clear that that loss must be insured against because we will only pay the market value.

(Mr Bender) That is work under way in my Department, in discussion with the industry, a subject of great controversy with the industry as you would expect, and in discussion with the Treasury. The issue is introducing compulsory insurance in one form or another.

183. Most industries do have to pick up the bill for insurance. This should be no different. One thing we have noticed is this cost of cleaning. The different costs of cleaning shown in Figure 58 on page 93 just amaze me. The prices vary across this country. Of course it is very difficult to get a cleaner in London at the same price as a cleaner in Carlisle but this is not the type of cleaning we are talking about, is it? Did your Department know that? These are specialised contractors who move in, yet if you do not know the price of the contract, then it is quite obvious that you did not know what you were doing. You had no standard, you had no laid-down criteria, it was just left to local people to do what they thought was best. Is that true?

(Mr Bender) It was left to our local managers to do what they thought was appropriate with us monitoring costs from the start, based on the precedent set in the classical swine fever outbreak. We had initially thought that the cost per farm, depending on the nature of the farm, would be likely to be between £25,000 and £50,000. Signs emerged in June that it could be substantially higher, hence the review that was carried out. The review actually concluded that the price was likely to be in that original range, but it did identify a number of actions to tighten up and we have recovered £8.2 million of overpayment out of a total of £9.4 million which we considered to be overpaid.

184. That is excellent. Do you consider that the farms in Carlisle which cost nearly £70,000 a unit to clean, are different to the farms in Worcester at £30,000? That seems to be a good price in Worcester.

(Mr Trevelyan) I do not know whether we are reading the same table but in the second part of Figure 58 farms in Worcester cost £70,000 and farms in Carlisle about £35,000. You would expect large livestock holdings with commercial dairy holdings of 200 or 300 cows to cost more than a sheep farm. Sheep farms can be cleaned up relatively simply because there are fewer buildings, less equipment. We would expect a regional differentiation. The important thing was that once the invoices began to come in, we began to see the scale and the risks we were facing. We were not clear what the risks were at the beginning and that is why we put a stop on

<sup>9</sup> Ref. footnote to Q 10.

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payments while we reassessed the whole position and reintroduced a new control regime which said no cleansing and disinfecting takes place without a clear business plan, a statement as to the number of days to be worked, the cost and who is to be doing it. There was then a preference that the farmers themselves should be leading the process rather than in the hands of contractors.

185. Yes; exactly. If we lay down a procedure and farmers understand from day one that it is their responsibility to clean the farm, you can get an estimate of what it would cost in today's value from the books, could you not?

(Mr Trevelyan) Yes. It would be a cost that varied by the nature of the farm and the scale of the farm.

186. Of course. I am well aware that milking parlours vary in size according to the herd, I know about slurry pits, what farmyards look like. Every farm could have an indication but the procedure for cleaning should be laid down by your Department, should it not?

(Mr Trevelyan) Yes and the annex on cleansing and disinfection was something which we reviewed twice in the life of the outbreak because there is a danger, because of the risks of re-infection, that you get gold plate. Then we are faced with the costs. We were getting feedback from the country of fumigating timber, for example, so we developed new techniques. We were not only putting in stronger controls, but we were also restating the standards which we were operating and made sure that we were not overdoing the process. Nonetheless there is very serious risk of re-infection. No farms were re-infected as a result of poor C&D this time, whereas many, too many, were in the 1967-68 outbreak.

#### Geraint Davies

187. This obscene disaster cost six million deaths in terms of cattle, livestock and £8.6 million in terms of the cost to agriculture, tourism and government. If it started again tomorrow in the same way that it started before, how many cattle would be slaughtered and how much money would it cost in the light of all the information and experience we have had today?

(Mr Bender) I cannot answer your question, because it would depend on how rapidly it was detected, how rapidly the control measures came in.

188. Let us assume that it was exactly the same, namely that tomorrow we suddenly found that we had 57 premises detected and we had one case which had been 21 days where 80% of the livestock was affected. So we would know exactly on day one the same information as we knew before and it cost six million livestock and £8.6 million. What have you learned and how much would you save?

(Mr Bender) I cannot give an answer on how much we would save. We have learned so far a number of lessons which are set out in the memorandum the Government have sent to the Anderson inquiry. One thing we would do would be to introduce an immediate ban on all animal movements. That would save some cost.

189. Without going through it all, because I will go through the nuts and bolts, in terms of a ballpark figure, do you have a ballpark idea? Obviously you would stop movements and you would presumably have valuers as was recommended in 1966 and various other facilities at your disposal and you would act more quickly. Would it still be six million deaths or one million?

(Mr Bender) No, we have concentrated on setting up the systems which would cope more rapidly, learning from what happened last time. We have not done the calculation that you are asking for.

190. It seems to me in terms of the management and focus of this crisis that it was obvious that it was focused very much on your Department rather than the wider costs of tourism and the Government, tourism being about £5 million and the Government being £3 million, agriculture £0.6 million. Do you feel with hindsight that if we had simply closed down the countryside and gone for vaccination we would have saved a great deal of money, in particular presumably we would have saved all the money from tourism which was £5 million.

(Mr Bender) It does not follow quite that way. The Government did consider vaccination. Vaccination is not necessarily a panacea. We shall have to see what the various inquiries themselves recommend on it, but the international conference on vaccination last December came down against prophylactic vaccination, at least on the present basis of science. The Dutch did use a certain form of vaccination. They slaughtered more animals per outbreak as a result than we did.

191. The issue I am getting at here is that your focus and sadly the whole focus in this has been the situation in agriculture. I am asking about losing £5 million in tourism. The situation in Holland where they did some sort of vaccination firebreak clearly saved the tourism money if not a few cattle.

(Mr Bender) They knew where the disease was because they saw it coming. They did not have it seeded in 57 different places at the beginning. One of the lessons we have learned is that we would not have a blanket closure of footpaths the way we did, knowing what we now know. That again is different from the strong pressures at the time. That must have had an impact on tourism.

192. I guess the point I am making is that if there were an outbreak tomorrow and you vaccinated everywhere where there was culling and contiguous culling and you immediately stopped movements, would it not be the case that you would, if that were now the policy, save millions of cattle and billions of pounds in tourism? Is that not the case?

(Mr Scudamore) It is difficult to assess that. Even the Northumberland Report said that if we had a large number of scattered outbreaks in large numbers of areas and we had to vaccinate large numbers, it would present considerable difficulties. It also means that it would be equivalent to general vaccination. If we look at the outbreak we have just had, if we had vaccinated, we would have vaccinated nearly all the country.

193. It would not, would it? I am saying that the vaccination would be equivalent to the general killing. You went out and you killed six million

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animals. I think that is many too many. Obviously we caught it late and we did not know what we were doing and all the rest of it, but if we did know what we were doing from day one, tomorrow, and the options in front of us were killing three million cattle and burning them on the television so no American tourists came over or vaccinating them and marking them and ultimately getting rid of them at a low cost, would that not obviously cost much less in agricultural values, let alone the massive cost to tourism? Is that not true? If it is so obviously true, why are you not recommending that as the new policy? It seems to me from what you are saying that if the outbreak occurs tomorrow, you would do the same thing, perhaps slightly quicker, and run round setting fire to hundreds of thousands of cattle and all the rest of it.

(Mr Bender) We would not use funeral pyres as our preferred method of disposal.

194. Why would you not go for the selective vaccination?

(Mr Bender) We might go for it. Exactly what the Government's policy will be on vaccination will depend on what the various inquiries, and in particular the Royal Society inquiry, says when it publishes the report.

195. So you do not know until those inquiries report. One of the costs which is not obvious to me in this Report is the environmental cost, issues around dioxins coming off the pyres, issues around water contamination. Page 92, paragraph 57, mentions the risk of spreading BSE through the water table, through burning carcasses and burying them. Have you done any evaluation of the overall environmental cost financially and is there any view on the environmental risk?

(Mr Bender) A lot of monitoring was done; very little environmental damage in any medium-term basis as opposed to the immediate. There were four significant water pollution incidents.

196. In terms of dioxins coming off the fires, these scientists do these extrapolations, do they not? How many deaths in terms of the increase in dioxins in the atmosphere are estimated to have occurred due to you burning all these cattle?

(Mr Bender) There were no reports of illnesses. The evidence from monitoring air quality around the pyres shows that they posed no additional risk to health through the food supply and no illnesses associated with air quality have been detected. That is the advice from the Public Health Laboratory Services.

197. What was the increase in dioxin levels in the areas around these pyres? Did it breach acceptable World Health Organisation levels? It was suggested that it did.

(Mr Bender) It was closely monitored by local government, by the Public Health Laboratory Services, by what was then the Department for the Environment, Transport and the Regions. The Food Standards Agency raised a point about dioxins on pasture.

198. Can you provide some numbers, either now or in a note, on whether people can safely live round these burning cattle?

(Mr Bender) The answer to the question is yes to both: we will provide what data we can in a note, and the health was closely monitored.<sup>10</sup>

199. Both you and Mr Scudamore have said that this was completely unknown because the vector for contamination was sheep. Am I right in saying that in 1966 no evidence came to light of sheep transferring this disease? Is that true? Were there no examples of sheep being infected?

(Mr Scudamore) A small number of sheep was thought to have been infected in 1967.

200. So it was known that sheep could transfer this. Why then was it such a big shock to everyone that it was a different vector?

(Mr Scudamore) This particular strain of virus seems to be sheep adapted. Every strain of virus is different and, as I said earlier, the strain in Taiwan is pig adapted. This appears to be sheep adapted, so it appears when it gets into sheep that it can either have a transient effect and they do not show much disease, or it can spread very slowly. It was entirely different to what was seen before.

201. It was entirely different. May I refer you to page 114, which shows a profile of the number of cases confirmed per week in 1967-68 and 2001? What this shows is that the shape is basically the same, the spread is probably more exaggerated in 1967-68. Do you not feel we should have been able to tackle this faster, given that we have this profile of transfer, even though you say the sheep were different the overall transfer for whatever reason is much the same, is it not?

(Mr Bender) There was a vastly greater geographical area, number of holdings and size of holdings affected in 2001 than in 1967-68.

(Mr Scudamore) The spread in 1967-68 was to some extent by the airborne route, whereas the spread in our outbreak in 2001 was predominantly not by the airborne route, it was mainly by sheep, contact between sheep and cattle and contact either directly or indirectly between flocks and herds. The spread was quite different to that in 1967-68 which was predominantly windborne, spread in the Cheshire plain and from people spreading it from farm to farm.

202. Are you happy then, in light of the different profile of viruses that you are aware of, the different vectors, the different transportation pattern in the marketplace, that tomorrow you could manage an outbreak much more effectively than you could in 2001?

(Mr Scudamore) It is an important issue. If we have an outbreak in the near future, it might be a different strain, it might be in a different species, it might be in a different part of the country and it might have an entirely different epidemiology. One of the difficulties we face is that if we have another outbreak, it would take us about 14 days to get the information to know what is happening. If you have animals which are incubating disease, as happened in this case, they left Hexham and went all over the country, the disease does not develop for 14 days and in fact it was not until the middle of March that we knew what had happened.

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[Continued

**[Geraint Davies Cont]**

203. I must admit that I am slightly confused by this. You isolate a case of foot and mouth, then you do not really know what is going to happen for 14 days. It seems to me that as soon as you have a case, the presumption should be the worst case scenario and you close down transportation obviously and act swiftly. Why do you have to wait around for 14 days?

(*Mr Scudamore*) We said that in the contingency plan we would put in national movement controls. We put local controls on, we do tracing, we follow up animals.

204. What action would you take after 14 days that you would not take immediately?

(*Mr Bender*) You would know more where the disease was, the type of strain and be able to model what might happen, but you would not be awaiting those results before you took action.

205. There would be no change in action, there would just be a change in the amount of information. You would just close down the market, would you not, or not?

(*Mr Bender*) We would close everything down straightaway, but we would know more about the nature of spread when we had those results back.

206. In terms of that decision to close down a market on the basis of just one isolated case, would the cost to the environment, tourism, wider economy be borne in mind when making that decision? Obviously those costs were not borne in mind when making the decisions earlier on. It was more about how farmers felt about it.

(*Mr Bender*) The Government's policy of eradication as rapidly as possible was taken on the basis that this was best not only for farming but for the rural economy as a whole. But the answer to your question is yes, those considerations would be taken into account next time.

207. There was some discussion earlier about how we were paying through the nose to farmers who were exploiting the situation and that you were spending more than the previous market rate was. What I cannot understand is that you said you needed co-operation and that 70% of them went for the new higher standard price which was in the top quartile anyway. Why is the Government not marching in, saying we are the Government and we are killing those cows now, we will sort out the money later, we are not negotiating, we are doing it? Why could we not do that?

(*Mr Bender*) Farmers have certain rights.

208. Only to fair compensation, but that could be sorted out after the event.

(*Mr Bender*) We needed farmer co-operation to get rapidly onto the premises and do the slaughter.

209. Why did you not just go in?

(*Mr Bender*) They may well seek injunctions against us, they may well delay. The Government did not wish to have the military used to force entry onto farms.

210. Would you accept that if you were facing this resistance, farmers dragging their heels through this process in fact exacerbated, extended, the whole process, made many hundreds of thousands of extra cattle die and cost this country enormous amounts of money? You said that you had to do all this because

you could not go in and sort it out straightaway, you had to go through this ridiculous negotiation. So it was British farmers who cost us millions of pounds and millions of cattle. Is that right?

(*Mr Bender*) No, I would not put it that way.

211. No, but is it true? I know you would not put it that way.

(*Mr Bender*) We needed farmer co-operation to have rapid slaughter and that was the basis of the Government's approach.

212. Are you going to recover some of these excessive prices you paid, like six times the going rate for land hire fees and rings and all the rest of it? Are you now considering going back and saying you have looked at it again, you agreed this rate, you had to get the job done, but you want the money back?

(*Mr Bender*) If we are talking about the disputes with contractors, the discussion with contractors, there is a lot of money at stake, a lot of discussions going on and at the moment we are withholding £73 million while that work continues. In total we are withholding around £90 million. We would hope to recoup a good deal of that but it depends how much of that was overcharging or simply can be verified in due course.

213. When will you know the answer to my earlier question about whether it would not be more sensible to vaccinate the same bands that you would otherwise cull, contiguous and non-contiguous, to save all the costs to tourism? When will you come to the massive conclusion that this is the better idea or not?

(*Mr Bender*) The Government will have to respond to the independent inquiry reports and I cannot prejudge the timing of that response, but I would hope by the end of the year.

214. If it happened tomorrow we would not just vaccinate and have rings round, we would just murder all these cattle one more time and pay through the nose to all these farmers.

(*Mr Bender*) We might; emergency vaccination may have a role to play. It is part of our contingency planning.

215. But you do not know yet.

(*Mr Scudamore*) It is an extremely complex issue and I cannot go into great detail now. For example, if we had vaccinated in Essex, where we had 11 cases, we would have vaccinated for no particular benefit.

216. Vaccinate every cow you kill, all the contiguous areas and all the areas, that is what I am saying.

(*Mr Scudamore*) The problem is that if we vaccinate the contiguous ones which are incubating disease, we vaccinate them and they go down with the disease, so we would have to kill them anyway.

217. Kill them eventually, yes.

(*Mr Scudamore*) The issue is where you vaccinate and how far out you go to vaccinate and what species you vaccinate. Do you vaccinate all species or some of them? It is a very, very complicated issue.

**Chairman:** We shall have to wait for the Royal Society's report, although it has been heavily leaked that in fact vaccination is going to be recommended. Obviously you cannot comment on that, can you?

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**Mr Jones**

218. I should like to pursue the vaccination issue, if I may? May I refer you to page 31 and paragraph 2.22, which says, "During the 2001 outbreak the European Commission gave the Netherlands permission to use emergency suppressive ring vaccination in conjunction with the later slaughter of the animals". This was to prevent the disease spreading within the areas concerned. Is that right?

(Mr Bender) Correct.

219. Does it work?

(Mr Bender) It worked for them because they knew where the disease was and therefore they could draw a ring around it. What we considered was protective vaccination in Cumbria and possibly also Devon to damp down the disease, on the understanding that the animals would live and their products would find a market.

220. That was to vaccinate to live.

(Mr Bender) What the Government considered in March/April was a vaccinate to live policy.

221. Is that allowed under the European Union rules because the European Union policy is slaughter the animals to get rid of the disease?

(Mr Scudamore) The European Union policy was that if you did a ring vaccination you would slaughter the animals. We negotiated in Brussels a Commission decision which would have allowed us to vaccinate certain animals in certain counties and allow them to live, but it had very strict conditions attached to it. If we had vaccinated the animals in Cumbria, we had to identify the animals, we had to define Cumbria as a region, animals in Cumbria would not be allowed to leave Cumbria, the animals would have to be slaughtered in dedicated abattoirs and the meat would have to be deboned and matured and the milk would have to be pasteurised. We did negotiate an arrangement which would allow us to vaccinate animals to live which is protective vaccination, but there were restrictions and controls on that.

222. So that is a possible future system that we could vaccinate.

(Mr Scudamore) Yes.

(Mr Bender) It certainly is and we were ready to do it within three days, but the Government identified some conditions: no slippage on the slaughter policy, in other words not a diversion of resources, sufficient support from the farmers to ensure vaccination of the vast majority of cattle would be completed in 14 days and that the meat and milk from the animals would find a market. Those last two conditions were not met.

223. So there was no farmer co-operation.

(Mr Bender) There was not sufficient farmer co-operation. That was the judgement the Government came to at the time.

224. What about availability of vaccine? It says in paragraph 2.23, "... that Britain would vaccinate up to 500,000 cattle". Did we have that vaccine?

(Mr Bender) We have more now. I forget how many units my Department holds—around 15 million. We cornered the world market in it last year.

225. There were different varieties.

(Mr Bender) Yes.

(Mr Scudamore) Yes. We had access to 500,000 doses of a strain of vaccine which was similar to the virus we had which would have given cross immunity. We have an International Vaccine Bank which has seven strains of virus in it and around 500,000 doses of each. Other strains are continually appearing in the world. It is a virus which rapidly changes its strains and occasionally new ones arrive for which there is no vaccine. For example, there is a strain in Iraq or Iran at the moment, strain A, for which none of the vaccines will give immunity.

226. There was a report that Saddam Hussein was turning over one of his chemical weapons factories to making FMD vaccine when our crisis was on. Is that true?

(Mr Scudamore) I do not know

227. Looking forward, if it were up to you to make policy, would you think that we should routinely vaccinate cattle against FMD and maybe TB as well?

(Mr Bender) Maybe the Chief Vet will have view. If a reliable vaccine existed for TB, we should certainly be using it, but as I understand it, the research is several years away. The difficulty on FMD is the one you were just discussing with Mr Scudamore, which is what are you vaccinating against? It is like vaccination against flu, if you vaccinate against the wrong strain, you have wasted your time. It may be that the science will evolve on that and, again with apologies for referring to the Royal Society inquiry we have not yet seen, that may point a way forward on these issues.

(Mr Scudamore) The general view on prophylactic vaccination, that is routine regular vaccination, is that it is extremely difficult because you do get strain variation. It is not economically or logistically worth doing. As a prophylactic way you automatically do animals every six months.

228. Presumably one of the reasons farmers were against this was because there was a cost of vaccination. If we were to go to a policy of routine vaccination it would put up the price of meat.

(Mr Bender) I suspect the reasons they were against it were primarily because they thought their product would lose value, which is not necessarily the same thing. As I understand the position of the President of the NFU, some of the scientific uncertainties of being able to distinguish between a vaccinated animal and a carrier animal meant that he was not convinced it would be as effective as continuing with the slaughter policy. That is my understanding of a series of questions he had at the time.

229. The message you are giving me is that we need to spend a bit more on developing more intelligent vaccines and the ability to detect whether an animal has been vaccinated or whether it is a carrier.

(Mr Scudamore) There is a lot of progress on that. At the OIE this year it was agreed that a country could get its status back after six months, provided it did surveillance for disease and it tested animals for the evidence of vaccination as opposed to infection. Quite a lot of science and work is being developed in these areas.

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[Mr Jones Cont]

230. Table 48 on page 75 has the names and locations of mass burial sites. I was a bit perturbed to find that there was a potential capacity of over 3.5 million animals, yet the number of carcasses buried is 1.2 million. Are you expecting two more disasters?

(Mr Bender) No, we are not. We went to mass burial at the time when the disposal problem became very severe, especially after the introduction of the contiguous cull policy. At the time we had these graphs, one of which was indicating an exponential increase, and we thought it prudent to plan for the worst case scenario. Therefore we took on some of these sites. We are now in discussion about how to ensure the environment is managed actively in the future, so that the public health concerns do not arise and secondly, in discussion with local authorities, local owners about what should happen to the sites. For example, I learned today that Elliot Morley is meeting Devon County Council next month to discuss the future of the Ash Moor site. It is not sinister. It was planning at the time when the crisis was at its height, but we did not know whether it was going to get worse or not.

231. At the site at Throckmorton in Worcestershire, just north of me, there have been reports in the last few days that it may be leaking. Should we be concerned about that?

(Mr Trevelyan) I can indicate that that was a misunderstanding. There have been rumours in the area and we are attempting to reassure the population. We have in fact spent a great deal of money creating a clay barrier which completely isolates the burial site from the surrounding environment. Our belief is that through pumping out leachate we have actually reversed the water gradient if anything, so water is moving into it rather than out. We are giving that reassurance to the local population.

232. Earlier in response to Mr Howarth you were talking about the people who provided services during this outbreak and there was a slightly amusing question at the end which you did not get the chance to expand on about under-invoicing. Could we have note on the amount of under-invoicing which took place?

(Mr Bender) Yes.<sup>11</sup>

### Mr Steinberg

233. When we get to this stage in the meeting all the arguments have been put. It is now up to me to make a decision whether you are guilty or not. I have listened to the evidence and I find you not guilty actually. I think it is all very well and good blaming the Department for lacking hindsight and what you should have done, but the fact of the matter is that you were not to blame. I honestly believe that. It seems to me that there are people to blame and certainly things could have been done better, but the Report shows me that many farmers were responsible for a lot of the spread anyway. It has now been conclusively confirmed, that Waugh's pig farm at Heddon-on-the-Wall was clearly where it started.

He was found guilty of feeding unprocessed pig swill, failure to notify the disease and disgusting animal cruelty. That is right, is it not?

(Mr Bender) That is correct.

234. If Waugh had followed the law and notified the authorities when he knew what was happening on his disgusting pig farm, and we have all seen pictures, particularly in the North East, of what it was like, what would have been the consequences if this man had kept to the law?

(Mr Bender) There is a prior consequence which is that if the pig swill had been treated properly, the pigs would not have had the disease in the first place. If he had notified it promptly, then I would be confident that our contingency plan would have been adequate because it would have been more like a repetition of the classical swine fever outbreak, which I recognise was very difficult for the people of East Anglia, but was controlled.

235. I come to the conclusion that although you have taken some stick this afternoon and you have taken some stick in the press over the last year almost, a lot of responsibility should fall on the farmers themselves. In my view they have a clear responsibility. Why have you not robustly put this across? I get the impression that you have been on the back foot all the time and been taking, as we say in Durham, "a bat on the gob" all the time when you should have been coming forward and admitting you did have problems and it was a huge exercise, but if the farmers themselves had been more responsible we would not have had the situation we had. Why have you not done that more robustly?

(Mr Bender) Some of that has happened. I know Elliot Morley has gone onto the attack several times, including when he presented the Animal Health Bill in the Commons and the week before last over the unmarked pigs. Undoubtedly farmers have a responsibility, but I would not duck the fact that so do the authorities and therefore my Department have a responsibility to try to ensure that the law is respected and enforced, and that if there are breaches, as there were, we have plans to deal with them.

236. I got very cross last weekend because the Farmers' Union in particular still seem to be adopting the same attitude that they adopted when it was first announced what the problem was. I listened to the President of the NFU on television last week, when Waugh had been found guilty and I was coincidentally reading the Report at the time. I noted down things he was saying. Although he grudgingly said that yes, he condemned Waugh for what had happened, he seemed to be more interested in putting the blame on the Government and saying if the Government had ensured that illegal meat had not come into this country we would not have had the problem in the first place. That is just ducking the issue, is it not?

(Mr Bender) It is largely, in the sense that there is more that the Government are doing to try to minimise the risk of illegal imports coming in, but that risk is never going to be zero. It is a question of risk management. Ultimately we do need farmers to have the right behaviour on biosecurity and that comes back to a discussion I had earlier about the

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balance, that Government are going to have to decide very soon about this 20-day movement restriction. It is a very heavy regulatory burden on the industry, but on the other hand, all the advice which Ministers are getting from scientific and veterinary experts, is that it is a precautionary measure which needs to be taken. That is the balance with an industry which has been through a very difficult time and is financially in crisis.

237. It is financially in crisis but it has not done badly out of the taxpayer over the last 12 months, has it? Listening to the President he said that the Government should have taken stricter measures in preventing the illegal importation of meat. The Government have a problem stopping hard drugs coming into the country, they have a problem stopping illegal immigrants coming into the country, therefore they have a huge problem stopping piles of meat coming into the country illegally. That is really ducking the issue and not taking their responsibilities seriously. He seemed to forget that if Waugh had not broken the law in the first place, this would never have happened. You talked about the pig swill. Has pig swill now been banned?

(Mr Bender) It was banned in May last year by the Government. It was one of the early lessons we learned during the disease outbreak.

238. Did the NFU support the banning of pig swill?

(Mr Bender) Yes, they did. There were some pig swill users who protested, one or two of whom were wearing T-shirts at the Royal Show this week. The NFU did support it.

239. Good; at least that is positive. At the moment it is a self-regulating industry and Mr Scudamore said it was very, very difficult not to run it in such a way. Is it not really about time now that the livestock farmers were licensed or registered in order to control the rogue farmer such as Waugh?

(Mr Bender) This is a difficult issue and Ministers in my Department have been reflecting on it and discussing it. Don Curry's Policy Commission Report on the future of farming touched on it, but was not calling for obligatory licences. What we are trying to explore at the moment in the Department is an approach where there will be a risk-based inspection and enforcement regime of farmers on a whole farm approach and one which would ideally be driven by farm assurance, so that the farmer's route to market would pull them in the right direction as well, rather than moving down a kind of excessive regulation, licensing route. At the moment, no definitive decision has been taken by Ministers on these issues.

240. At the moment it seems to me that the whole of the argument is that the Government and the taxpayer should take the whole of the risk. It does not matter what happens but the taxpayer should fork out and the taxpayer has forked out something like £3 billion. What evidence is there to show that the farmers themselves are in a position to share risk with Government? Is there any evidence at all?

(Mr Bender) There is not much evidence that they are yet ready to, but the discussions I referred to earlier are being actively pursued by my Department with the insurance industry and with the livestock

industry, to get that risk shared in some way or another. That is something which you will not be surprised to know the Treasury are fairly keen on as well.

241. It was also mentioned that there was a scare in a Midlands abattoir with a pig two or three weeks ago. My understanding is that you were unable to trace the holding of the original pig.

(Mr Bender) Yes, it was unmarked.

242. What would have happened if that pig had had foot and mouth disease?

(Mr Bender) We would have had a serious problem. We had traced 34 potential farms where we would have taken action, where we had already put movement restrictions around those farms and would have introduced the national movement ban. The farmer in question, he or she, was breaking the law and if we can find them, then we would assume—and this is a local authority responsibility not a DEFRA responsibility—some action would be taken.

243. So we can honestly say, after almost a year since the most horrendous disease outbreak that this country has seen in animals for 30 years, they have learned nothing.

(Mr Bender) In this particular case that was a depressing conclusion that my Ministers reached two weeks ago.

244. We say it is just one farmer. But it was one farmer who caused the original one, Waugh. Here we have, a number of months later, somebody doing exactly the same thing, no lessons learned. Why is that? Shall I tell you why it is?

(Mr Bender) Please.

245. I shall tell you why it is. It is because they are not bothered, because they know at the end of the day that the taxpayer is going to pick up the bill. They know that at the end of the day if anything goes wrong Joe Soap will have a penny put on his income tax and that will cover the costs. The industry has learned nothing. In my view a system must be brought in where they have to share the risk of a serious problem such as this. Do you think I am right?

(Mr Bender) That is why my Department is pursuing this. May I say one thing about the industry? We are talking about tens of thousands of individual business people, many of whom are very conscientious, hard-working, able farmers and some rogues.

246. Absolutely, but it only needs one rogue, does it not?

(Mr Bender) It only needs one rogue.

247. We have had one rogue at Heddon-on-the-Wall, we have had one rogue there though we do not know who it is and it could have been a rogue where we could have had exactly the same situation over again within less than a year because they broke the law. In terms of risk sharing, it is all to do with insurance. I did some research, it did not take much, and found out how many farmers bother to insure. I shall do a Duncan Smith here. Do you know how many insure?

(Mr Bender) It is a small proportion.

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**[Mr Steinberg Cont]**

248. I shall tell you. It is 10%. 10% of farmers insure. Has there not got to be a movement towards saying, right, there has to be risk sharing, insurance has to be the way?

(*Mr Bender*) That is my personal view. That is what my Department is pursuing at the moment in discussions with the livestock industry, the insurance industry and the Treasury. I hope we will get there.

249. My understanding also is that—if I am wrong you will tell me and I shall go off the point—the Government have absolutely no obligation to do the cleaning and disinfecting of farms, they do that on a voluntary basis. It could be passed to the farmer. Is that right, or am I wrong?

(*Mr Trevelyan*) We have an obligation to ensure the disinfection, but, as our colleagues in the Netherlands have demonstrated, it is possible to leave the clean-up to the farmer and that does radically reduce the cost.

(*Mr Bender*) It also increases the risk of the disease emerging again which was one of the things which went wrong in 1967–68.

250. You take the point that Geraint was making, perhaps a little bit more strongly than I. He was saying we should go in with the Army and kill the cows and then give them the compensation afterwards. Surely the scenario is pretty much the same. You could go in, disinfect and give them the bill for disinfecting. Is that possible?

(*Mr Bender*) I think it is legally possible.

251. They should be told this. You are just too soft. The problem is that you are such a nice man, they should be told.

(*Mr Bender*) Would you like the CVO to comment on your question rather than on your comment?

(*Mr Scudamore*) The situation is that with other diseases which are less likely to spread and less likely to infect other animals, like tuberculosis or brucellosis, the farmer is expected to clean at his own expense. The reason with foot and mouth disease is that we are concerned because it is highly virulent and it is resistant so we cannot risk leaving the farm with the virus on it. We do the preliminary disinfection, which we are required to do, but after that we do it for security reasons. The question of who pays is a good question.

252. In terms of insurance you explained to us that they cannot insure for the livestock and therefore they did not get paid twice for the same thing. What struck me was that if somebody has a ram which is worth £50,000, I should have thought they would insure that regardless, because it might get knocked over by a bus and killed. Why should they not insure?

(*Mr Bender*) Presumably some of your 10% do insure for that sort of reason, but if the animal is slaughtered under the Animal Health Act, then it is the taxpayer who pays rather than the insurance company in those circumstances. This is what we need to bottom out and pursue in the continuing discussion.

253. I hope so. My last question is to do with burial sites. The Tow Law site is very close to my constituency and in fact the river which runs through my constituency has feeders from Tow Law and that particular area. As you are well aware, there was great concern about the burial site in the first place

regarding the possibility of leachate from the site. I know that a lot of my constituents have written to me and I have written to the Department and they are very, very worried that in future years there could be leakage from this particular burial site into the drinking water and the rivers and through my constituency and the river Wear. Can you give me a 100% guarantee that this is not going to happen?

(*Mr Trevelyan*) That would be rash, but it is an extremely well engineered site. It benefited from the experience we had had with one or two of the earlier sites and it is under constant monitoring. I cannot give you the number of monitoring posts we have at that site. All the leachate which is coming from the carcasses is being tankered away and treated so that it is on exactly a par with all the other mass burial sites which are all quality sites and they are all being monitored and fully engineered.

254. You are waffling; you are not going to give me a 100% guarantee, are you?

(*Mr Bender*) That answer is that we take the issue very seriously, we are monitoring actively and we are looking at restoration plans to return it possibly in the first instance to heather moorland. On the question you asked, no-one can say there is an absolutely zero risk in anything. We take the risk seriously, we have engineered it to the highest standards, we monitor it actively and continue to monitor actively.

**Chairman:** Thank you very much. We have been going for three hours and you will be relieved to hear there are no more questions for you to answer. We shall just ask you now, to shorten the proceedings, to provide a few notes for us. Mr Bacon is going to ask you for a few.

#### Mr Bacon

255. I should like you to write to the Committee about a number of things. The first is illegal imports. I counted 11 areas, there maybe more, a very thorough note on that would be very helpful.

(*Mr Bender*) Yes.<sup>12</sup>

256. The second is the basis for the decision for continuous culling, by which I mean the rationale, particularly in light of the evidence of Dr Donaldson of the Institute of Animal Health to the EU inquiry where he said that there was no justification for the three-kilometre contiguous cull.

(*Mr Bender*) You are looking there for the policy rationale. We also promised something on the legal rationale.

257. I shall come to that. If at the end there is something you are not clear about perhaps you would ask.

(*Mr Bender*) I am sorry, did you mean the contiguous cull?

258. The basis for the contiguous culls, particularly in light of the evidence of Dr Donaldson of the Institute of Animal Health in Pirbright to the EU inquiry where he said that there was no justification. What I want to hear and see there is why he is wrong.

(*Mr Bender*) Understood.

<sup>12</sup> Ev 33

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MR BRIAN BENDER CB, MR JIM SCUDAMORE  
AND MR GEORGE TREVELYAN

[Continued

**[Mr Bacon Cont]**

259. Why Professor Roy Anderson in his article in Nature in October 2001 was wrong when he said there were significant biases in the DEFRA contact tracing process. Next, the legal basis for the contiguous culling. There are four parts to that. First the basis in statute law, presumably the Animal Health Act 1981. I have read it and I cannot see a basis but perhaps you could point one out to me. Second, in case law. Here I should like you to examine any cases which are deemed relevant but including a mention please of the West Hall and Linslade cases, and particularly in the light of those two cases an analysis of the scientific evidence which was not available to the court in those cases.

**Chairman:** You must tell us if these are reasonable requests which you can do in the context of reasonable resources.

(Mr Bender) I think they are; so far I believe they are. I am not alarmed by the questions.

260. The West Hall and Linslade cases and the scientific evidence which was not available to the court for those. Third, the MAFF versus Upton case, the first case people think was based on full scientific evidence. The point I want you to address here is why it was that after the MAFF versus Upton case, the Government did not seek to test the legality of contiguous culling any further. Fourth, in relation to legal advice, all the legal advice received. I have opinions from QCs saying that the culling was illegal, so any opinions you have from QCs or other legal advice relating to foot and mouth disease.

**Chairman:** We have to look at value for money on this Committee. We are not a group of lawyers. As long as you are happy that this is to do with value for money

(Mr Bender) Until you said "any legal advice we had" my legal adviser sitting in the corner there seemed content. We can provide a note covering the legal justification for the contiguous cull in statute and in case law and pick up the specific cases you ask about.

261. It is relevant to value for money in the end because if it was done and it was illegal you were *ultra vires* and you were wasting taxpayers' money in the process. Particularly therefore the analysis of the slaughter powers in the new Animal Health Bill. If you had the powers already, why was there a new Animal Health Bill with new slaughter powers?<sup>13</sup> I have the classical swine fever report referred to in paragraph 2.50 of the NAO Report. Who saw that in the Department in top management and when did they see it? Protecting the export trade was often used as a justification for the policy, so any statements or notes, documents, which justify that, anything which justifies the statements that it was done to protect the export trade. Finally in your evidence to the EFRA Select Committee in relation to your Department's annual report there were 17 areas where you undertook to write to the EFRA Select Committee with further information. Perhaps you could provide us with a copy when you write to them.

(Mr Bender) That at least is not resource intensive.<sup>14</sup>

<sup>13</sup> Ev 34-44

<sup>14</sup> Ev 44-46

**Chairman**

262. Are those reasonable requests within the resources of the Department?

(Mr Bender) Yes, they mostly are. The area I am pausing on is some of the legal questions.

263. I am not going to press you on providing legal tomes.

(Mr Bender) We will provide what we think is a fair answer to Mr Bacon's questions.

264. Mr David Rendel would like to know whether we could have a note on how many vets have been employed in the Government Veterinary Service each year since 1990.

(Mr Bender) You can. The number of front line vets has not altered. The number of vets in management has, but that is partly as a result of changing management practices. We shall provide that in a note.<sup>15</sup>

265. You did mention the impact of the closure of footpaths on rural tourism and you said your policy would be different now and you would not be imposing a blanket policy. Perhaps you could let us have a note on that because we did not go into any detail on footpaths and that is an important point.<sup>16</sup> Looking to the future, you have issued an interim contingency plan for Foot and Mouth Disease which draws on the experience and what we have learned from 2001. We should be interested to know what you are doing to revise your contingency plans for other animal diseases in the light of what happened in 2001.<sup>17</sup> We have mentioned vaccination and the Royal Society Report, which I know is coming out very shortly. When that report does come out, I should be interested to have your observations on it.

(Mr Bender) I would imagine our Ministers will say something to the House.

**Chairman:** In the context of what we have been asking you, particularly given Mr Geraint Davies's questions.

**Geraint Davies**

266. Perhaps the cost implications of annual vaccination for cows.

(Mr Bender) It may well be that the definitive answer has to wait until the Government have really considered and we are talking about later this year.<sup>18</sup>

**Chairman:** We shall be reasonable about it, but any help you can give us. May I thank you Mr Bender, Mr Trevelyan and Mr Scudamore for seeking to answer our questions so fully? We have ranged very widely and our report will deal with all these points: contingency plans, vaccine, impact on the tourist industry, compensation payments, payments to service providers, consultation with stakeholders and other subjects. You have certainly illuminated our discussions and we are grateful. Order, order.

<sup>15</sup> Ev 47

<sup>16</sup> Ev 47-49

<sup>17</sup> Ev 49

<sup>18</sup> Ev 49

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[Continued

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## APPENDIX 1

### Supplementary memorandum submitted by the Department for Environment, Food and Rural Affairs

*Question 70: The first mark in paragraph 4.31, "Although 14,000 were accepted, over 3,000 applications . . . were either rejected . . . or later withdrawn". I am presuming in this that a large proportion of these were effectively fraudulent. . . . Can you tell me whether or not any of these farmers who have sought to abuse the system by making false or exaggerated claims have been charged, prosecuted or had any other action taken against them for this particular area?*

#### LIVESTOCK WELFARE (DISPOSAL) SCHEME

1. The Livestock Welfare (Disposal) Scheme was a voluntary scheme and producers were free to withdraw animals from it right up to the time of collection without penalty and without being required to give a reason. This flexibility was necessary to ensure that producers were able to take advantage of the increased opportunities for animal movements and marketing as these became available. Investigation of withdrawn applications was not considered a worthwhile investment of resource during the FMD crisis particularly since no payments had been made to the producers concerned. Efforts were rather concentrated on controlling access to the scheme by tightening eligibility checks from the beginning of May and rejecting those that were found ineligible. Of the rejected applications, none led to a fraud investigation. The 46 fraud investigations initiated on the LW(D)S were in the main pursuant to third party allegations, observations concerning the categorization of animals at collection or on arrival at the abattoir, and other information coming to light after slaughter and payment.

2. The present position on the outstanding investigations referred to in paragraphs 4.79 and 4.80 of the NAO Report is that one has been completed resulting in the RPA withholding £810, and in another action has been taken to recover £27,000 (though this is being disputed by the producer). Two further cases are under consideration for recovery action (total £66,000) and one case is still being investigated involving £76,500.

*Question 132: Take the £50,000 for a Swaledale ram. Has any work been done in that particular case to see what that particular farmer has done to replace that and what the costs involved in replacing it were?*

#### LIVESTOCK REPLACEMENT ISSUES

3. Owners were compensated for the value of the stock that was slaughtered. What the owner does with the compensation is entirely their decision. They are not obliged to restock. Information on price paid for replacement stock can only be obtained from the owner who is not compelled to provide it.

4. As the majority of farmers are "starting again" they will not be replacing "like with like"—animals will be at different stages in their production or breeding cycle. Thus restocking costs may have little relevance to the compensation paid. Many would have restocked with core breeding stock which is not traded at most markets and would have been bought privately. For those farmers who have restocked, we cannot specify what replacement prices were as again these can only be obtained from each individual farmer who is not compelled to provide it. Indications are, however, that autumn sheep sales might see higher prices for breeding stock, though it is too early to tell.

5. The Swaledale Ram referred to in fig 54 of the NAO Report was compensated at its original purchase price of £50,000.

*Questions 147 and 151: So you do not know how many of the 59 farmers who had compensation of over £1 million also had insurance claims and you have not bothered to ask? Do you mean you do not even know and you have not even asked whether they were getting insurance as well as compensation?*

#### ANIMAL DISEASE INSURANCE

6. The payment of compensation to farmers for the value (taken to mean market value) of animals compulsorily slaughtered, for the purpose of FMD control, is required by the Animal Health Act 1981. Compensation is payable whether or not the owner has insurance to cover the loss of a slaughtered animal.

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7. A study carried out for DEFRA by Lorien Consulting<sup>1</sup> has revealed that insurance products on the market complement rather than duplicate statutory compensation. The Lorien study reported:

“There are currently three types of insurance which are widely available to deal with the consequences of disease control:

- products which make up any difference between the statutory compensation paid for a slaughtered animal and its market value before slaughter
- products which provide an additional sum, related to the statutory compensation received for a slaughtered animal or its market value, to cover consequential losses. The sum commonly varies between 25% and 50% of the compensation or market value. The premium paid varies according to the percentage selected by the insured
- products which provide a sum, expressed in pounds per head per week, to compensate for consequential effects of movement restrictions. The amount of the payment can be selected by the insured, within limits prescribed by the insurer, and the premium is set according to the sum selected. The maximum duration and aggregate size of such payments is usually limited.”

8. DEFRA officials have held a series of discussions with representatives of the insurance industry and have found no instances of policies which cover owners for the capital value of their animals. Such cover would be nugatory, given the Government’s obligation to pay compensation. Section 34 (5) of the Animal Health Act 1981 states:

“If the owner of an animal slaughtered under this Act at the Minister’s direction has an insurance on the animal, the amount of compensation awarded to him under this Act may be deducted by the insurers from the amount of the money payable under the insurance before they make any payment in respect of it.”

9. The Curry Commission recommended that Government investigate ways of sharing the financial risk of animal diseases with industry. The Commission suggested that subsidised insurance schemes, or a joint industry-Government levy scheme, were better than the public purse bearing the whole risk. A working group led by DEFRA and comprising representatives of the livestock and insurance industries held a series of meetings earlier this year. Officials have reported to Ministers and a decision on the way forward will be announced in the Autumn.

10. A parallel review is under way on the rates of compensation payment for compulsory slaughter. Any changes to the current system must continue to comply with the Human Rights Act 1998, which incorporates the European Convention of Human Rights into domestic law. In particular, Article 1 of Protocol 1 of the Convention states that:

“(1) Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law.

(2) The proceeding provision shall not however, in any way impair the right of a state to enforce such laws as it deems necessary to control the use of property in accordance with the general interest or to secure the payment of taxes or other contributions or penalties.”

The view of DEFRA lawyers is that in most foreseeable circumstances, slaughter of animals under the applicable legislation, for disease control purposes will be considered by the courts to be a deprivation of property, provided for by law. Under the human rights legislation, the payment of compensation will be an important factor in determining whether or not the right balance has been achieved between the rights of the individual, who has been deprived of his property, and the public interest of animal disease control.

11. DEFRA does not hold information on whether any of the 59 farmers who received payments of over £1 million had insurance. In view of paragraphs 6–8 above, DEFRA does not consider that it is worthwhile to ask the farmers for this information. However, if the Committee still wishes the Department to obtain this information, we could write to the farmers but we cannot compel them to disclose what insurance they had at the time.

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<sup>1</sup> Lorien Consulting: Statutory Animal Disease Controls—Insurance for Consequential Losses (March 2002).

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*Questions 164–169: Mr Osborne referred to one set of lessons you should have learned from the Northumberland report on the 1967–68 outbreak. . . . That report recommended that senior valuers be appointed to monitor. The Department’s standing instructions—instruction not guidance—for veterinary staff envisaged the appointment of senior valuers but in the event no steps were taken by the Department to appoint such valuers until July 2001; that is 33 years later . . . . Why did the Department have it as a standing instruction if it was no use?*

#### APPOINTMENT OF SENIOR VALUERS

12. The Northumberland Report refers to senior valuers being appointed within areas to help secure uniformity in valuations. A role for senior valuers outside a disease outbreak was not foreseen, though as the NAO Report states the appointment of senior valuers during an outbreak was envisaged.

13. The extent of the 2001 FMD outbreak was such that in many areas the demand for valuers was high. In discussions with the Central Association of Agricultural Valuers it was acknowledged that many valuers would have been used for FMD valuations—identifying suitable, senior valuers would not be straightforward.

14. The immediate concerns during the outbreak were to eradicate the disease. Attention was more on simplifying the valuation process rather than adding to it. Standard valuations were introduced and this procedure would have no role for senior/monitor valuers.

15. Standard valuations did not provide the solution hoped for by Ministers. Discussions on senior/monitor valuers with CAAV in May/June did not reach a conclusion. The Department approached ADAS in early July and subsequently appointed two ADAS livestock advisers to provide advice on compensation valuations, arbitration cases, “guide” prices and market information.

16. The Department is in discussion with the CAAV once more with the aim of setting up arrangements identifying senior valuers and a clear role for them.

17. The Department is working with the NAO and the European Commission to review the valuation situation and learn the lessons for improved arrangements for the future.

*Questions 196–198: How many deaths in terms of the increase in dioxins in the atmosphere are estimated to have occurred due to you burning all these cattle? What was the increase in dioxin levels in the areas around these pyres? Did it breach acceptable World Health Organisation levels? Can you provide some numbers, either now or in a note, on whether people can safely live round these burning cattle?*

#### DIOXINS FROM PYRES

There have been a number of Government sponsored reports and other information dealing with emissions of air pollutants arising from pyres and the health impacts of these. Two comprehensive reports entitled ‘Effects on health of emissions from pyres used for disposal of animals’ published 24 April 2001 and ‘An update on risks to health of emissions from pyres and other methods of burning used for disposal of animals’, published 22 November 2001, are available on the Department of Health FMD guidance web pages: [www.doh.gov.uk/fmdguidance/](http://www.doh.gov.uk/fmdguidance/)

19. These reports were produced by a group involving the Department of Health, DEFRA (DETR), the Food Standards Agency, the Environment Agency and AEA Technology. The first of these reports was produced very rapidly, before the results of the measurement campaigns had been analysed and assessed. The second report incorporated these results and assessments. One key fact to emerge was that the first report, which erred on the side of caution, overestimated the emissions of dioxins from pyres by a large amount. Another report of relevance is that published in December 2001 by the Environment Agency entitled ‘The Environmental Impact of the FMD Outbreak: an Interim Assessment’ and available from [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

20. We would not anticipate any extra deaths from the increased amount of dioxins in the atmosphere from the pyres.

21. The Government’s independent expert advisory committee, the Committee on the Toxicity of Chemicals in Food, Consumer Products and the Environment (COT) has recommended a Tolerable Daily Intake (TDI) for dioxins of two picograms per kilogram body weight per day.<sup>2</sup> The TDI is the amount of a chemical contaminant which can be taken in daily over a lifetime without appreciable health risk. Assessments by the Department of Health and by the Food Standards Agency indicate that emissions of dioxins from the pyres were unlikely to result in substantial increased intakes of dioxins either by inhalation or from consuming food from areas near the pyres, and that it was unlikely that anyone would have exceeded the TDI for any substantial period as a result of these emissions. Therefore, emissions of dioxins from the pyres are not considered to have posed a risk to health.

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<sup>2</sup> 1 picogram is  $1 \times 10^{-12}$  or one million millionth of a gram.

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22. Air quality monitoring has been undertaken by AEA Technology (on behalf of DEFRA) and by the Environment Agency.<sup>3</sup> The primary aim of the monitoring by DEFRA was to determine pollutant concentrations in communities close to the pyres. The monitoring undertaken by the Environment Agency covered both monitoring in communities and in areas closer to the pyres to better assess the overall impact of the pyres on air quality. Air monitoring for dioxins around pyres was carried out in Sennybridge (Powys, Wales), in Galloway, in Holsworthy and Okehampton (Devon).

23. The Environment Agency Report of December 2001 concluded that dioxin concentrations were “comparable with background urban quarterly concentrations but much lower when converted to a quarterly average.”

24. The Department of Health Reports assessed the levels in the vicinity of pyres as follows:

“The available measurement results for dioxins around the pyres are almost all at the lower end of values measured elsewhere in the UK and similar or below the limited number of rural air quality measuring stations for dioxins.”

25. The Department of Health Report compared these levels with those which have been observed by AEA Technology around the time of Bonfire Night:

“This contrasts with recently available analyses of samples taken over the Bonfire Night weekend in 2000 which show a significant increase in dioxin concentration at 13 of the 15 sites at which measurements were made and are consistent with earlier studies of dioxin concentrations on Bonfire Night. This suggests that the type of bonfires which occur in November are significantly different in their dioxin emissions than the pyres. This may be a result of the better combustion and control on materials entering the pyres compared with the Bonfire Night fires.”

26. The Food Standards Agency undertook analysis of dioxin concentrations in food, soil, herbage and silage samples taken from farms and food producers close to pyres. They consider that “the available results show that the pyres have posed no additional risk to health through the food supply”. “Concentrations of dioxins in all samples of milk analysed are all within the expected range for these foods or comparable with the concentrations in the appropriate food group from the 1997 Total Diet Study.” The reports of this work are available on the FSA website ([www.food.gov.uk](http://www.food.gov.uk))

27. The WHO have recommended a “Tolerable Daily Intake” (TDI) of dioxins of 1–4 picograms per kilogram body weight per day. WHO has not set an air quality guideline for dioxins. Since the TDI is the amount of a chemical contaminant which can be taken in daily over a lifetime without appreciable health risk, it is unlikely that exposure to short-term peaks would lead to any effects when averaged over a lifetime.

28. There are two main routes of uptake of dioxins into the body, via inhalation and via food (ingestion). The first Department of Health report in April 2001, based on modelling of the emissions from a “generic pyre” burning 250 cattle equivalents per day, concluded that “the concentrations of dioxins at 2km from the pyre are not predicted to give rise to intakes via inhalation above the TDI for dioxins”, and “the additional dietary exposure from the consumption of foods from animals raised in areas affected by dioxins from the pyres is not expected to be associated with adverse effects on health.”

29. In November 2001, the Committee on Toxicity (COT), which advises the Food Standards Agency and the Department of Health, reduced its recommended TDI to two picograms per kilogram body weight per day. The second Department of Health report on pyres revisited the earlier advice, recognising that in the interim the COT had changed the TDI, and that the monitoring data around the pyres had been assessed leading to the conclusion that the earlier modelling work had significantly overestimated the emissions of dioxins from the pyres. The second Department of Health report concluded “Dioxin levels were overestimated in the previous report but even these overestimated levels were not considered to be of major concern.”

30. In order to assess the effects on the TDI via ingestion, the Foods Standards Agency took samples of soils, vegetation, and food from around a wide range of pyre sites and at a range of distances from the pyres. A comprehensive description of the process and a detailed presentation of the results are given in the second Department of Health report. The overall conclusion was that “Levels of dioxins in soil, herbage and food were mostly within the expected range and/or similar to levels at control farms.”

31. Moreover, the report concluded that “the previous recommendation regarding the monitoring of dioxins around large pyres prior to the reintroduction of cattle has been superseded and no longer applies. In the light of the monitoring results on dioxins in milk, the Food Standards Agency has concluded that the

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<sup>3</sup> ‘Effects on health of emissions from pyres used for disposal of animals’ published 24 April 2001; ‘An update on risks to health of emissions from pyres and other methods of burning used for disposal of animals’, published 22 November 2001; and Foot and Mouth Disease: Disposal of Carcasses Programme Report on Results of Monitoring Public Health, published in July, August and November 2001 are available on the Department of Health foot and mouth guidance web pages: <http://www.doh.gov.uk/fmdguidance/>

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precautionary advice issued previously—that people who consume whole milk and whole milk products only from animals within 2km of pyres may wish to vary their diet to include milk and milk products from other sources—is no longer necessary.”

32. The Department of Health Report also concluded that “Decisions on whether to graze or restock land close to pyre sites should be based on advice on preventing the spread of FMD. The Food Standards Agency has advised that where heavy contamination of land was found restocking or grazing of land should not be carried out. The Agency has not found any evidence of such contamination but have not received all the results from their testing programme. Further guidance will be provided if heavily contaminated land is found.”

33. The assessment of the likely impacts on public health from dioxins released from the pyres has been given above. In terms of the other pollutants released from the pyres, the Department of Health Reports on Monitoring of Public Health referred to above state that “levels of pollutants were either lower than air quality standards or within the range of urban background levels.”

*Question 232: Earlier in response to Mr Howarth you were talking about the people who provided services during this outbreak... you did not get the chance to expand about under-invoicing. Could we have note on the amount of under-invoicing which took place?*

#### UNDER-INVOCING BY CONTRACTORS IN THE FMD OUTBREAK

34. DEFRA received over 200,000 invoices in connection with FMD. The financial and management accounting systems of many contractors were overwhelmed by the scale of the FMD outbreak and the resultant number of invoices and supporting documentation that those systems were expected to generate. The Department is aware of five cases (although there may be more) where contractors have claimed they have under-invoiced.

35. These contractors claim that their financial records indicate (often several months after services have been delivered) that they could or should have charged for services but have in fact not done so. In some of the cases it has been the work of DEFRA’s forensic accountants that has identified the apparent under-invoicing. DEFRA’s payment policy is to pay contractors the monies legitimately due to them for work commissioned by DEFRA. The claims of any contractor with regard to under-invoicing would be subject to forensic examination by DEFRA’s forensic accountants.

36. The total value of unpaid disputed invoices relating to FMD is substantial—not less than £70 million. On current knowledge the value of under-invoicing is less than 1% of the monies being withheld from contractors whilst forensic examination of their accounts is concluded.

37. In cases where contractors have claimed they have under-invoiced, these claims will be part of the resolution of the overall commercial dispute with the contractors concerned. From information held centrally we are unaware of any cases where under-invoicing is not part of the overall forensic examination and financial reconciliation of the contractor’s account.

38. DEFRA has no interest in holding back payments legitimately due to contractors. Given the substantial amounts of public money involved and DEFRA’s public responsibilities, it is duty-bound to carry out a proper investigation of contractors’ accounts with DEFRA before authorising payments. Substantial resources have been committed to carrying out this exercise as quickly as possible.

39. It has been and remains DEFRA’s intention to ensure that invoices submitted by contractors and suppliers for payment by DEFRA relate to valid work requested by DEFRA to combat the outbreak and are supported by valid supporting evidence. We will continue to facilitate the payment of supplier and contractor invoices based on a clear and complete audit trail.

*Question 255: I should like you to write to the Committee about a number of things. The first is illegal imports. I counted 11 areas, there maybe more, a very thorough note on that would be very helpful.*

#### ILLEGAL IMPORTS

40. The Government published an action plan on illegal imports on 28 March for 2002–03 following discussions with stakeholders.

41. Since May there has been further progress made to implement the plan. Information is also available on the DEFRA Illegal Import website which can also be accessed via the DEFRA home page [www.defra.gov.uk](http://www.defra.gov.uk)

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[Continued

*Questions 43, and 258–261: The basis for the contiguous culls, particularly in light of the evidence of Dr Donaldson of the Institute of Animal Health in Pirbright to the EU inquiry where he said that there was no justification. What I want to hear and see there is why he is wrong. Why Professor Roy Anderson in his article in Nature in October 2001 was wrong when he said there were significant biases in the DEFRA contact tracing process. Next, the legal basis for the contiguous culling. There are four parts to that. First the basis in statute law, presumably the Animal Health Act 1981. I have read it and I cannot see a basis but perhaps you could point one out to me. Second, in case law. Here I should like you to examine any cases which are deemed relevant but including a mention please of the West Hall and Linslade cases, and particularly in the light of those two cases an analysis of the scientific evidence which was not available to the court in those cases.... Third, the MAFF versus Upton case, the first case people think was based on full scientific evidence. The point I want you to address here is why it was that after the MAFF versus Upton case, the Government did not seek to test the legality of contiguous culling any further. Fourth, in relation to legal advice, all the legal advice received.... Particularly therefore the analysis of the slaughter powers in the new Animal Health Bill. If you had the powers already, why was there a new Animal Health Bill with new slaughter powers?*

## THE CONTIGUOUS CULL

### *Development of Policy*

42. FMD is a highly infectious disease. The strain (pan-Asiatic type O) in this epidemic is particularly virulent. Virus may be excreted by an infected animal before signs of infection (typically lesions around the feet and mouth) develop. There is a massive release as lesions develop and for several days afterwards.

43. The key to controlling a highly virulent, highly infectious, short incubation period virus such as the FMD virus is to prevent the virus being excreted by infected animals. Rapid action is required.

44. The policy at the beginning of the outbreak was to cull:

- (a) all infected and susceptible animals from Infected Premises (IPs); and
- (b) all infected and/or susceptible animals on premises that have had “dangerous contact” with infected premises (DCs).

“Dangerous contact” effectively meant animals which had been exposed in any way to the FMD virus, such as by direct animal movement, movement to/from infected markets, movements of infected lorries or personnel and by close geographical proximity (including exposure to a virus “plume” in the air).

45. This culling policy was in addition to other measures, including controls on the movement of live and dead animals; controls on the movement of people and objects from IPs and DCs; cleansing and disinfection of people, vehicles and other equipment.

46. In mid-March the daily number of new cases was continuing to increase. Epidemiological advice was that the key methods of transmission were through animal, human, mechanical or air borne transfer between neighbouring farms. On the basis of this epidemiological background, it was DEFRA veterinary advice that susceptible animals on farms neighbouring (ie contiguous to) a farm where infection has been confirmed would have been exposed to the infection of FMD. Veterinary advice was that culling susceptible animals on contiguous farms was vital to prevent further onward spread of the disease. Thus, the contiguous cull policy was adopted. In implementing this veterinarians had to be satisfied that premises were, in fact, contiguous (geographical factors such as a significant area of woodland located in the area separating premises, could affect this) and that in implementing general policy, particular animals had, in fact, been exposed to infection.

47. In late April and in the light of the developing disease situation, it was possible to introduce further flexibility into the policy and the areas of discretion for local veterinary judgement were broadened. The following exemptions from the contiguous cull were adopted:

- (a) cattle if adequate biosecurity could be demonstrated;
- (b) rare breed sheep, where these could be isolated and managed in compliance with tight biosecurity.

Such livestock would be subject to regular veterinary inspections.

### *The Scientific, Epidemiological and Veterinary rationale for the Contiguous Cull*

48. The veterinary justification for the contiguous cull is set out in full at paragraphs 101–115 below. This, as well as the epidemiological and scientific underpinning for the policy is summarised in paragraphs 50–53 below.

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#### *The scientific basis*

49. In mid-March, different modelling groups, including from different University institutions, and the Government's Chief Scientific Adviser all agreed that the number of cases per day would increase unless further action was taken. The veterinary view as informed by epidemiological advice was that susceptible animals on premises contiguous to an IP would have been exposed to infection and posed a serious risk of spreading the disease further. It was necessary to get ahead of the disease: that is to say, to act very pro-actively because livestock shed virus before showing clinical signs.

#### *The veterinary and epidemiological basis*

50. Pigs are the most infective species due to the large amounts of virus they produce. Virus can then be spread downwind by aerosol dispersal. Cattle and sheep produce similar quantities of virus, though much less than the amount produced by pigs.

51. Sheep are a particular problem when infected with FMD. Clinical symptoms of FMD in sheep can be difficult to spot and the infected flock can therefore act as a "virus factory" for a prolonged period of time as the virus moves from sheep to sheep whilst remaining undetected.

52. The FMD virus was spread by direct contact between infected and non-infected animals, by air, or in or on materials such as urine, milk, semen, vesicular fluid or faeces which themselves can be found in or on hay, farm equipment, clothes etc and as a result are spread by the movement of animals, people, vehicles and possibly wildlife.

53. The epidemiological evidence was that the disease was spreading rapidly, including in the immediate vicinity of IPs by air and by animal and people movements. This led veterinary experts to conclude that premises holding susceptible animals that neighboured an IP had been exposed to the virus. Given that the single most important consideration for effective control and eradication was quick identification and slaughter, it was considered that the cull of animals on contiguous premises should proceed.

#### *Lawfulness of the Contiguous Cull Policy*

54. The policy of culling animals on holdings contiguous to a site on which FMD had been confirmed was lawful both under UK and EU law.

#### *Legislative framework*

55. The principal domestic legal instrument governing the eradication and prevention of the spread of animal diseases is the Animal Health Act 1981 ("the Act"). It is under this Act that the Foot-and-Mouth Disease Order (SI 1983 No1950 as amended), has been made. This Order provides specific rules which enable the control of FMD.

56. It is through the powers contained in these provisions that the UK is able to give effect to EU requirements for the control of FMD as contained in Council Directive 85/511/EEC, as amended.

#### *Powers of slaughter*

57. Powers of slaughter for the purposes of disease control are set out in the Act itself and, in the case of FMD, are conferred by section 31 of, and paragraph 3(1) of Schedule 3 to, the Act. These provide as follows:

"Slaughter in certain diseases

31. Schedule 3 to this Act has effect as to the slaughter of animals in relation to:

- (a) cattle plague,
- (b) pleuro-pneumonia,
- (c) foot-and-mouth disease,
- (d) swine-fever, and,
- (e) diseases of poultry".

"Schedule 3 . . . Foot-and-Mouth Disease

3.—(1) The Minister may, if he thinks fit, in any case cause to be slaughtered:

- (a) any animals affected with Foot-and-Mouth Disease, or suspected of being so affected, and
- (b) any animals which are or have been in the same field, shed or other place or in the same herd or flock or otherwise in contact with animals affected with Foot-and-Mouth Disease, **or which appear to the Minister to have been in any way exposed to the infection of Foot-and-Mouth Disease**". [emphasis added]

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58. Paragraph 3(2) of Schedule 3 to the Act provides for the payment of compensation for animals slaughtered under paragraph 3(1) of that Schedule.

59. These slaughter powers were exercised during the FMD outbreak of 2001 as follows.

60. First, the Department slaughtered animals which were “affected” with FMD. These were animals which were considered, on clinical examination, to be exhibiting clinical symptoms of the disease, or in relation to which laboratory tests had yielded positive results.

61. Animals “suspected of being so affected” with FMD were also culled. These included animals which were slaughtered before the results of the laboratory tests were received but which would have been displaying ante-mortem clinical signs suggestive of FMD. Thus, whether or not “suspect” animals ultimately yielded positive laboratory results, they may be slaughtered pursuant to paragraph 3(1)(a) of Schedule 3 to the Act.

62. Animals which were or had been “in the same field, shed or other place or in the same herd or flock, or otherwise in contact with animals affected with Foot-and-Mouth Disease” (dangerous contacts) were also slaughtered, under the provisions of the first limb of paragraph 3(1)(b) above.

#### *Contiguous cull*

63. The last limb of paragraph 3(1)(b) (the words emboldened in paragraph 57 above) provided the basis for the slaughter of animals under the contiguous cull. This was because veterinary and epidemiological advice (see paragraphs 50–53 above and 101–115 below) was that animals in premises contiguous to infected premises had been exposed to infection and thus needed to be culled in the interests of disease control. Again, the lawfulness of the slaughter of an animal under this power is not affected by a later negative result from a blood test.

64. The decision to target animals on contiguous premises was made in the light of the epidemiological evidence that the virus was spreading rapidly, including in the immediate vicinity of infected premises by air, but also by factors such as people and animal movements. It was considered that all premises holding susceptible animals that neighboured (ie were directly contiguous to) infected premises had been exposed to the virus within the meaning of the last limb of paragraph 3(1)(b) of Schedule 3 to the Animal Health Act 1981.

65. On 23 March, epidemiological studies by the Imperial College, Edinburgh confirmed that the most important tool in the prevention of the spread of disease was culling within 24 hours from report and confirmation and the second most important intervention was the culling of animals on contiguous premises within 48 hours. These findings were supported by the Chief Scientific Adviser. The single most important consideration for the control and eradication was thus quick identification and slaughter.

66. This was the gist of the veterinary/scientific underpinning to the exercise of the slaughter powers under the contiguous cull. The animals were slaughtered because they came within the ambit of paragraph 3(1)(b) as animals which “appeared to the Minister to have been in any way exposed to infection”. The Minister had before him expert opinion that animals on premises contiguous to infected premises were exposed to infection, and they were therefore lawfully slaughtered in accordance with the Act. Where animals are slaughtered pursuant to the powers under the Act, the Minister shall pay compensation for those animals under paragraph 3(2) of Schedule 3 to the Act. It follows therefore that the compensation payments were also lawful.

#### *Subsequent negative blood samples*

67. For animals to be lawfully slaughtered as having been “exposed to infection” within the meaning of the legislation, a subsequent blood sample confirming the existence of old/active infection is unnecessary. It is sufficient that the Minister is of the view that the animals have been exposed to infection for the slaughter powers to be triggered and for these powers to be exercised lawfully. In relation to animals on contiguous premises and basing himself on expert opinion, that was the Minister’s view. It is in any event the case that many blood samples from animals on contiguous premises were positive. Furthermore, even where samples delivered negative results, it cannot be assumed in every case that this was confirmation of absence of infection; one significant reason for this kind of result may have been that the sample was taken at a very early stage in the development of disease so that antibodies were not yet detectable.

#### *Lawfulness of the Contiguous Cull under European Community Law*

68. It has been confirmed by courts in the United Kingdom that the provisions of Council Directive 85/511/EEC, as amended, were not intended to constrain national Governments from taking steps additional to those contained in the Directive where they were deemed necessary to eradicate disease (see *Westerhall Farms v Scottish Ministers*—judgment of 25 April 2001 and *Winslade v MAFF*—judgment of 22 May 2001). It follows that as the contiguous cull was considered necessary for the eradication of disease, it is compatible

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with that Directive. The Commission of the European Communities was at all times aware of the detail of the UK's culling policy and approved of the approach. Indeed, the recitals to the Commission Decision permitting a programme of vaccination in parts of the UK specifically acknowledge the existence in the UK of the contiguous cull policy.

69. In *Westerhall Farms v Scottish Ministers*, the Scottish Court of Session considered an application for interim relief by the owner of a farm seeking judicial review of a decision to slaughter its livestock pursuant to the 3km policy (in relation to which the test for lawful slaughter was also exposure to infection as it was with the contiguous cull). Neither the 3km (or contiguous cull) methods of stamping out are expressly envisaged by the Directive. Nevertheless, the court rejected the argument put forward by the farmer that the Community instrument provided a "comprehensive and exhaustive code limiting what national Governments are entitled to do to prevent the spread of Foot-and-Mouth Disease".

The judge stated that:

"First, I am unable to agree with the submission that the 1985 Council Directive as amended by the 1990 Directive is intended to be a comprehensive and exhaustive code limiting what national Governments are entitled to do to prevent the spread of Foot-and-Mouth Disease. Rather, as originally framed, the Directive was intended to provide the minimum preventative steps required by such Governments. I do not consider that the 1990 amendments, which were concerned mainly with the proscribing of policies of vaccination, were intended to stop Governments from taking further steps deemed necessary to eradicate the disease, provided, of course, that such steps did not conflict with the terms of the Directive. These terms seem to envisage programmes of emergency slaughter in both the protective and surveillances zones outwith holdings where the disease has actually been diagnosed. This is so even although the Directive does not dictate that such slaughter should or even might take place. In these circumstances, I am of the view that the current policy of slaughter within a 3km radius does not conflict with the Directive. Rather it seems to be one foreshadowed in its terms" (paragraph [25] of the judgment).

70. Very similar arguments in relation to the contiguous cull's compatibility with Community Law were advanced by the defendant in *MAFF v Winstlade* in the English Courts. As in *Westerhall Farms v Scottish Ministers*, they were rejected, the English judge wholly endorsing the view of the Scottish Court (see paragraph D, page 7 of the judgment in *MAFF v Winstlade*).

#### *Rationale for the Contiguous Cull Policy—implementation in practice and the exercise of discretion*

71. As can be seen from the section on policy development above and paragraphs 101–115 below, the contiguous cull policy was adopted on the basis that the prevailing scientific and epidemiological view was that in the fast moving disease situation that existed in the early months of the outbreak, culling of animals on all contiguous premises was the most effective way to limit onward spread of FMD and thus to get ahead of the disease.

72. This was because the epidemiological evidence available at the time demonstrated that the virus was spreading rapidly including in the immediate vicinity of infected premises. It was considered that all premises holding susceptible animals that "neighboured" (ie were contiguous to) an infected holding had been in some way exposed to infection and thus needed to be slaughtered in accordance with paragraph 3(1)(b) of Schedule 3 to the Animal Health Act 1981.

73. This did not mean that the animals on those premises were deemed to have contracted the disease. Indeed, epidemiologists considered that some exposed animals might not go on to develop FMD: the problem was that there was no way of telling which of the animals on the exposed contiguous premises would and which would not. However, by the time an animal has contracted FMD, it is likely that it would have spread the disease to yet more animals. Thus, to minimise the spread of disease it was considered important to cull all exposed animals before they had the opportunity to pass the disease on.

74. The policy therefore did not depend on the diagnosis of developed disease but rather, on the identification of exposed animals. Consequently, when the policy was adopted, it was considered of the essence that it be applied quickly and systematically. In the view of the scientists and epidemiologists, the single most important consideration for effective eradication and control was quick identification and slaughter.

75. Nevertheless, some areas of the policy inevitably gave rise to issues relating to its application in specific cases. Individual consideration was given to these at a local level. In some cases, for example, this involved a local review of whether premises were, in fact, truly contiguous to an infected holding. This could have arisen, for example, because areas on each of the holdings to which animals had access were separated by a physical obstacle such as woodland, road or railway. In other cases, animals on either or both of the holdings in question had been permanently housed and so the owners of animals on the contiguous holding argued that his particular animals had not been exposed to disease. These matters were reviewed and considered by the veterinarian at local level and in some cases, were also referred to experts at HQ for further consideration.

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76. From the inception of the contiguous cull policy on the 23 March 2001, it was also the case that representations from farmers on these matters were heard by way of review: in effect, an informal appeal. Nearly all of these were dealt with by the local MAFF Divisional Veterinary Manager but some, again, were referred to HQ for further examination. This demonstrates that whilst disease control considerations required vigorous enforcement of the policy, it was not so rigid that individuals were not afforded the opportunity to argue for an exemption and that such exemptions were granted in appropriate cases.

77. In total, there were 584 appeals against slaughter. Five hundred and thirty four of these were either against the 3km or contiguous cull policies. Three hundred and thirty six of the 534 were upheld and 198 rejected. Of the 198, over 50 became potential applications by DEFRA for injunctions as a result of objections by farmers to the contiguous cull and their consequent refusal to allow DEFRA officials entry onto premises for slaughter purposes. Of these, four formally came before the Courts. These were:

*MAFF v Winslade*

*MAFF v Willmets and Warne*

*MAFF v Hodgson*

*MAFF v Jordan.*

78. Additionally, there was an application for an injunction in a direct contact (DC) case: *MAFF v Upton*, and there were two judicial reviews: *R v Kindersley ex parte MAFF* and *Westerhall Farms v Scottish Ministers*. In the first case, the applicant sought to challenge the 3km policy but he withdrew before hearing and agreed to pay full legal costs to MAFF. In the second, the petitioner attempted a challenge of the 3km cull in Scotland but failed.

#### *The Case Law*

79. It is to be noted where an individual is seeking to establish that the Minister is operating an unlawful policy the appropriate vehicle by which to challenge that policy is by way of judicial review. Although it was open to any individual to do so, no judicial review was ever brought against DEFRA challenging the lawfulness of the contiguous cull policy. A single challenge (*Kindersley*) was mounted in an attempt to overturn DEFRA's 3km policy but this was withdrawn. In Scotland, a judicial review was brought against the 3km cull (*Westerhall*) but the grounds of challenge advanced by the petitioner (the policy's incompatibility with Community Law and ECHR rights; its over-rigid application in practice and the absence of a hearing and adequate reasons for the decision to cull) were all rejected by the Scottish Court of Session.

80. The cases which were decided by the courts in England were not judicial reviews; they were injunction proceedings. These were proceedings commenced by DEFRA in cases where farmers resisted entry by slaughter teams, in which DEFRA sought an order from the High Court compelling the farmer to allow entry for the purpose of giving effect to the contiguous cull.

81. As can be seen from the above, the lawfulness of the contiguous cull is dependant on the view of the Minister (as advised by appropriate experts) that animals on contiguous premises have in some way been exposed to infection. The expert view was that they were so exposed. Thus, the policy was lawful. However, it was always the case that individuals could argue for an exception from the application in practice of the policy if they could demonstrate that in their particular circumstances exposure to infection had, exceptionally, not occurred. Of the injunction proceedings relating to the contiguous cull which came before the courts (four in all) the defendant succeeded in resisting the contiguous cull in one case only: *MAFF v Willmets*. This was because the court found, as a matter of fact, that the premises were not after all contiguous and that a significant period had elapsed from confirmation of disease on the IP in question. In the event, the exemption became academic as the animals on Mr Willmet's farm developed the disease shortly after the court hearing and were quickly slaughtered as "affected" animals.

82. If the contiguous cull policy had been unlawful *ab initio*, all the cases which were heard would have fallen at the very first hurdle on grounds that the policy was outwith the governing statutory powers. The fact that in the cases of *Willmets* and *Upton* (the latter in any event being a direct contact (ie a DC) not a contiguous cull case) the defendants succeeded in resisting an injunction on the specific facts of their cases did not mean that the policy was unlawful.

83. In *Willmets* the Willmets premises were found not to be contiguous and since the policy did not extend to those premises the judge refused an injunction. The judge nevertheless endorsed the contiguous cull policy and noted that it would have been plainly satisfied had the Willmets premises been contiguous (p 5 paragraphs B and C of the judgment).

84. *Upton* did not concern the application of the contiguous cull policy but was in fact a dangerous contact case. In that case the judge (p14 of the judgment) specifically confirmed the lawfulness of MAFF's slaughter policy in relation to dangerous contacts. His comments are nevertheless relevant to the lawfulness of the contiguous cull policy as the latter is an off-shoot of the former and both are dependant on exposure to

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infection as the trigger for the lawful exercise of the slaughter powers under paragraph 3(1) of Schedule 3 to the Act. Thus, neither *Willmets* nor *Upton* support the proposition that the contiguous cull policy was unlawful.

*DEFRA action following MAFF v Upton*

85. It has been suggested that after the decision in *MAFF v Upton* “the Government did not seek to test the legality of the [contiguous] cull again”.

86. In answer to this, it should be noted firstly that the Government has never sought to “test the legality” of the contiguous cull—it is satisfied that it is lawful both under domestic and Community Law. The injunction proceedings referred to in the preceding paragraphs were aimed at compelling resistant farmers to allow DEFRA officials entry to premises for the purposes of conducting that cull. Secondly, it is not correct to suggest that DEFRA desisted from pursuing injunction proceedings after *Upton*. In fact, there were five injunctions threatened post *Upton*, two of which concerned contiguous premises. Of the five, four did not need to proceed to formal hearing as the farmers relented and accepted slaughter—these included the two contiguous cull cases. In one case, it was concluded by DEFRA that there was, after all, insufficient evidence to establish direct contact so as to proceed to a cull based on dangerous contact and legal action did not therefore proceed. In the remaining case, the animals in question tested positive whilst the matter was being heard by the court. Slaughter therefore proceeded. Full legal costs were awarded to DEFRA.

*The relevance of the Donaldson article in the injunction proceedings*

87. The Donaldson article was published in the *Veterinary Record* on 12 May 2001. It was seen in draft by DEFRA veterinary experts some weeks previous to publication and the views of Dr Donaldson were put forward at various meetings of the CSA’s Science Group when they discussed possible relaxation of the contiguous cull policy. Regard was therefore had to its conclusions by the relevant Government experts as the policy developed. However, Dr Donaldson’s report deals, in large part, with only one aspect of FMD transmissibility—airborne spread. In practice the routes of transmissibility and exposure to infection are more varied: direct or indirect mechanical transmission by the movement of people, vehicles, wild animals, equipment, fodder. Thus, in a contiguous cull situation all potential vectors must be regarded as potential conveyors of disease and thus as conduits for exposure to infection of animals on premises bordering an IP, see further paragraphs 101–115 below which deal with the significance of local spread and how it has not been possible to determine the exact mechanisms of local spread.

88. It follows therefore that when considering the justification and underpinning of the contiguous cull, Government experts needed to consider all possible routes of transmission including, but not exclusively, the longer distance airborne transmission examined in the Donaldson article. Their decisions in relation to the cull were informed by many sources of information and opinion of which Dr Donaldson’s was only one.

89. It has been suggested that DEFRA should have made the Donaldson article specifically available to the court in the injunction cases, in particular, in *Winslade*. As described in the preceding paragraph, the Donaldson article constitutes only a single element in the whole panoply of factors debated and considered by Government experts in formulating the epidemiological justification for the contiguous cull. The epidemiological justification for the contiguous cull policy was set out by the Veterinary Head of MAFF’s Exotic Diseases Team who pointed out the many means of spread of the virus over a local area. In addition evidence was given by the local official who dealt with the appeal by *Winslade* against the decision to cull his animals. The local official carefully considered all the specific points made by *Winslade* but concluded, largely as a result of the very close proximity of some of *Winslade*’s animals to animals at the neighbouring infected premises, that the cull should proceed. The judge considered that the decision to proceed with the cull was not an unreasonable one on the facts of that case.

90. We cannot see that it was appropriate nor necessary in this context for the Donaldson article to be put in evidence, any more than it was appropriate or necessary to put before the court all the vast amount of published literature on FMD or indeed all the individual elements of advice that were considered in the formation and application of Government policy.

91. It is the view of the Government experts that in a contiguous cull situation no potential route of transmission can be ruled out. That was their view in all the cases, including *Winslade*, where on the facts, as with the majority of cases, it was evident that a number of possible vectors, including aerosol transmission over a short distance, could have been implicated in transmission. The statistics set out in paragraphs 95–109 below show just how likely animals on premises a short distance from infected premises were to go down with the disease. The whole purpose of the contiguous cull policy was to cull the animals before they went down with the disease in order to prevent onward spread of the disease. That purpose was well within the scope of the Minister’s power under the Animal Health Act.

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92. In *Upton*, DEFRA's expert did not consider airborne transmission to be a relevant factor because, on the facts, DEFRA considered there to have been direct contact in this case. The judge, however, found that on the evidence, he was not satisfied that direct contact had occurred and that is why the application for an injunction failed.

*The Anderson letter in Nature*

93. Mr Bacon asked "Why Professor Roy Anderson in his article in *Nature* of 4 October 2001 was wrong when he said there were significant biases in the DEFRA contact tracing process".

94. Computerised models give a broad insight into the disease processes that are taking place on the ground. No computer simulation can model what is actually happening in a disease outbreak with great precision—there are too many variables to take into account. A simulation model of an FMD outbreak therefore can only be a simplistic representation and any model will be subject to variability and dependant on any assumptions made in determining the parameters used by the modeler in constructing the model. As Anderson says the output of the model described is an estimate and the text refers to a "newly estimated disease kernel". The output from a computer model must be interpreted and a judgment made on its validity given any existing knowledge on the epidemiology of disease.

95. The DEFRA contact-tracing process is, however, based on actual events. When disease is confirmed on a farm then the movements of animals, people, vehicles and other things onto or off the premises that may either have introduced disease or may have spread disease are traced. These tracings are based on the factual evidence gleaned on the farm. It is true that not all of the events that may either have brought disease onto the premises or which may have spread disease from the premises will have been observed, reported and therefore investigated. Subsequent analysis of the epidemiological data has shown, however, that 78% of cases occurred within 3km of an existing infected premises. There will always be differences between that which is actually observed and that which a computer simulation predicts.

96. The specific comment that "This implies significant biases in the DEFRA contact-tracing process, with closer contacts being more easily identified", does not mean that the computer models used to support the rationale behind the contiguous cull were flawed. The output from the model reported in the Anderson letter continues to support the fundamental premise that the animals at greatest risk of becoming diseased are those in closest proximity to an infected place.

*The Animal Health Bill*

97. It has been suggested that the Animal Health Bill was introduced in order to give the Secretary of State a power, not available to her under the Animal Health Act, to slaughter any animal she thinks should be slaughtered, whether or not the animal has been exposed to FMD. This is correct but it has also been implied that this enhanced power would enable her to conduct the contiguous cull lawfully. This is incorrect. As can be seen from the section on lawfulness of the contiguous cull above and paragraphs 95–109 below, animals on contiguous premises were exposed to infection and thus were slaughtered lawfully pursuant to the existing slaughter powers contained in Schedule 3, paragraph 3(1) of the Animal Health Act 1981.

98. The provisions of the Bill are intended to address important lessons learned from DEFRA's disease eradication experience. In relation to slaughter, two aspects of this experience in particular, are addressed by the Bill:

- (a) the possible need, during a future epidemic, to cull animals that have not been exposed to disease;
- (b) the readiness of farmers and their lawyers to obstruct the entry onto premises of officials responsible for giving effect to any slaughter policy, or in some cases taking blood samples and vaccination.

99. In relation to (a) above, the new slaughter powers contained in the Bill will permit the Minister to slaughter animals that have not been exposed to infection. This would enable culling of animals for preventative reasons, for example, by the creation of an animal-free "firebreak" around disease hot spots. It is considered that this would enhance the flexibility and thus the effectiveness of the slaughter options available to Ministers in any future outbreak.

100. In relation to (b) above, it became apparent during the last outbreak that a significant number of farmers were prepared to resist entry onto their premises of DEFRA slaughter teams. This kind of resistance meant that slaughter, the speed of which is so essential in an epidemic, was inevitably delayed. In cases where resistance was protracted, recourse had to be had to the courts by injunction so that entry could be effected by court Order. This, of necessity, delays the intended slaughter by a number of days, usually about a week. Given the need to slaughter quickly so as to get ahead of disease, these delays are clearly undesirable. Hence, the new, enhanced powers of entry contained in the Bill will provide for greater rapidity of access to premises by enabling the Minister to effect entry on obtaining a Magistrate's warrant—a process which is speedier and less cumbersome than an injunction. The Royal Society Report makes a point of calling for clear powers to enable speedy action in any disease control situation. The Anderson Report makes it clear there should be

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no doubt about the legality of any slaughter power. He particularly calls for clear powers to implement pre-emptive culls, should that be required. Both reports call for the option of emergency vaccination to be introduced. The Animal Health Bill does cover these points, but we will also need to assess over the summer whether any future provisions are needed that we could deliver by amendment to the Animal Health Bill.

*Detailed note on the veterinary rationale for the contiguous cull policy*

101. FMD is a highly infectious and contagious disease. Once infected, an animal may excrete large amounts of virus in exhaled droplets in its breath, in the vesicular fluid expressed from ruptured vesicles or blisters. These are the characteristic lesions of FMD found within the animals mouth and on its feet and occasionally its snout and udder. An animal will also secrete large amounts of virus in its saliva, nasal secretions, milk, semen, urine and faeces. FMD can be spread by:

- (a) direct contact between an infected and a non-infected animal;
- (b) exposure of non-infected susceptible animals to the FMD virus:
  - (i) borne in the air;
  - (ii) contained in or on materials such as saliva, mucous, urine, milk, semen, vesicular fluid or faeces (which themselves may contaminate other materials such as hay, feed, farm equipment, clothes etc.);
  - (iii) by consumption (by swine) of feed containing infected livestock products that has been inadequately heat-treated.

102. All of the potential modes of transfer have a part to play in the transmission of the virus and must therefore be treated very seriously. However, although infected animal movements seed an epidemic in particular geographical areas, the vast majority of FMD cases result from "local spread".

103. Local spread is defined as spread between infected premises (IPs) within 3km of one another, where no specific conveyor or more than one potential conveyor of infection has been identified. The exact mechanisms of local spread have not been fully determined. However it is believed that the majority will be either from local aerosol spread between animals, particularly where the animals are contiguous, or from the movement of contaminated, vehicles, people equipment, fodder and possibly wildlife, which may act as mechanical vectors of disease. By these conveyors environmental contamination is built up of the area in and around an IP, resulting in infected material on roads or other common facilities boundary fences or hedge etc, as well as the IP itself. This can lead to transmission by a host of potential agents (fomite transfer) such as persons, animals (including wild animals and pets), vehicles etc as the virus is picked and passed from one agent to another. For example, the virus may be found in faeces which is picked up by a vehicle leaving an IP and transferred to a road. It could then be picked up and transferred to other premises by another vehicle or a person on their footwear. The infectious faeces containing virus could be deposited in an area of the other premises where it may be some days before animals on the premises have contact with the faeces and become exposed.

104. The FMD virus may survive in the environment for long periods of time. R L Sanson of the Department of Veterinary Clinical Sciences, Massey University in a scientific review article published in the *New Zealand Veterinary Journal* 42,41-53, 1994, citing a number of international authorities including Alex Donaldson of the World Reference Laboratory, Pirbright, gives the following information on foot and mouth disease virus (FMDV) survival:

- (a) under natural conditions, FMDV secreted in saliva could remain viable for up to two days at 37°C, three weeks at 26°C and five weeks at 4°C. Russian workers have shown that FMDV in animal secretions may remain detectable inside contaminated buildings for at least a month during warm weather and for longer than two months during winter. On pasture the virus could persist for two to five days during summer months and for as long as 30 days when the average temperature is 1.3°C;
- (b) the survival times on common fomites (mechanical transmitters or conveyors) are given as:
 

|                                  |             |
|----------------------------------|-------------|
| Wool                             | 14 days     |
| Cow's hair                       | 4-6 weeks   |
| Houseflies                       | 10 weeks    |
| Contaminated footwear            | 11-14 weeks |
| Wood, hay, straw, feed sack, etc | 15 weeks    |

105. These survival rates thus illustrate the considerable scope for environmental contamination and local spread to premises sharing a boundary with infected premises by fomite transfer of the type described above.

106. The table below sets out the results of the epidemiological investigation based on all cases with data to 21 October 2001.

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## RESULTS OF THE EPIDEMIOLOGICAL INVESTIGATION

| Group Name         | Airborne  | Milk<br>tanker | Infected<br>animals | Local        | Other<br>formite | Conveyor  |                      | Vehicle   | Under<br>investigation | Total        | % due<br>to<br>'local' |
|--------------------|-----------|----------------|---------------------|--------------|------------------|-----------|----------------------|-----------|------------------------|--------------|------------------------|
|                    |           |                |                     |              |                  | Person    | Swill<br>(suspected) |           |                        |              |                        |
| Anglesey           |           |                | 1                   | 12           |                  |           |                      |           |                        | 13           | 92                     |
| County Durham      | 3         |                | 5                   | 82           | 1                | 4         |                      | 1         | 7                      | 103          | 80                     |
| Cumbria            | 2         | 8              | 41                  | 927          | 3                | 23        |                      | 10        | 55                     | 1,069        | 87                     |
| Devon              | 1         | 1              | 8                   | 146          | 1                | 6         |                      | 2         | 19                     | 184          | 79                     |
| Essex and Kent     |           |                | 4                   | 5            |                  | 1         |                      | 1         | 5                      | 16           | 31                     |
| Hereford           |           |                | 11                  | 118          | 3                | 12        |                      |           | 24                     | 168          | 70                     |
| North Yorkshire    | 3         | 2              |                     | 81           | 1                | 3         |                      | 4         | 27                     | 121          | 67                     |
| Northumberland     | 4         |                | 2                   | 76           |                  | 7         | 1                    |           | 11                     | 101          | 75                     |
| Sporadic           |           |                | 5                   | 2            | 1                | 2         |                      | 3         | 6                      | 19           | 11                     |
| Staffordshire      |           |                | 8                   | 52           |                  | 4         |                      | 4         | 17                     | 85           | 62                     |
| Wales              | 3         |                | 2                   | 44           | 2                | 10        |                      | 1         | 18                     | 80           | 53                     |
| Yorks and Lancs    |           |                | 4                   | 11           |                  |           |                      |           | 4                      | 19           | 58                     |
| Lancashire         | 2         | 2              | 1                   | 31           |                  | 1         |                      | 3         | 5                      | 45           | 69                     |
| <b>Grand Total</b> | <b>18</b> | <b>13</b>      | <b>92</b>           | <b>1,587</b> | <b>12</b>        | <b>73</b> | <b>1</b>             | <b>29</b> | <b>198</b>             | <b>2,023</b> | <b>78</b>              |
| Total per cent     | 0.9%      | 0.6%           | 4.5%                | 78%          | 0.6%             | 3.6%      | 0.0%                 | 1.4%      | 9.8%                   | 100%         |                        |

107. It can be seen from the table that the vast majority of FMD cases in GB (78%) were attributed to "local" spread. This is defined as spread between IPs within 3km of each other where more than one conveyor of infection has been identified. The relative magnitude of local spread differed between geographical groups, most likely due to regional differences in husbandry practices, stock distribution and control measures implemented. The exact mechanisms of local spread have not been fully determined. However, it is believed that the majority were either from aerosol spread between animals (particularly where they were in close proximity) or from contamination in the area near an IP, resulting in infected material on roads or other common facilities due to the movements of contaminated people vehicles [wildlife] and things.

108. It can be seen that only 18 cases (0.9%) are attributed to airborne spread whilst 1,587 (78%) are attributed to local spread occurring within 3km of an infected place. It appears therefore that longer distance airborne spread has not played a significant role in the transmission of the virus. This is consistent with the experimental research of Donaldson *et al*, 'Relative risks of the uncontrollable (airborne) spread of FMD by different species' (*The Veterinary Record*, 12 May 2001, p.602). The probable reason for this is that few pig premises (pigs being the main aerosol emitters of FMD) have become infected. However, it should also be borne in mind that short distance airborne spread cannot easily be differentiated from other causes of local spread and so the figures given above for local spread are likely to include an amount of short distance airborne spread.

109. Donaldson considered that the only uncontrollable risk of spread of FMD in the 2001 outbreak was airborne spread. He concluded when movement control is fully implemented animals on contiguous premises should not be at risk from uncontrollable spread, that is, airborne spread, unless there are pigs or very large numbers of cattle or sheep on the affected premises with early clinical signs and the concentration of virus in the plume was at the same or higher concentration than the threshold necessary to infect them. It is acknowledged that this was not a significant route of infection in the 2001 epidemic.

110. The reality however, is that the mechanisms of local spread other than airborne spread played a significant part in exposing animals on contiguous premises to infection ie direct or indirect mechanical transmission by the movement of people, vehicles, wild animals equipment and fodder which both contaminated the environment in and around the infected place and conveyed infection to susceptible animals on contiguous premises. Donaldson's paper gave little weight to these important and significant mechanisms.

111. Further analysis has shown that premises between 0 and 1km of an existing IP are 2.7 times as likely to go down with disease as premises which are within 2 to 3km of an existing IP. Premises which are within 1 to 2km of an existing IP are 1.7 times as likely to go down within disease as premises within 2 to 3km of an IP.

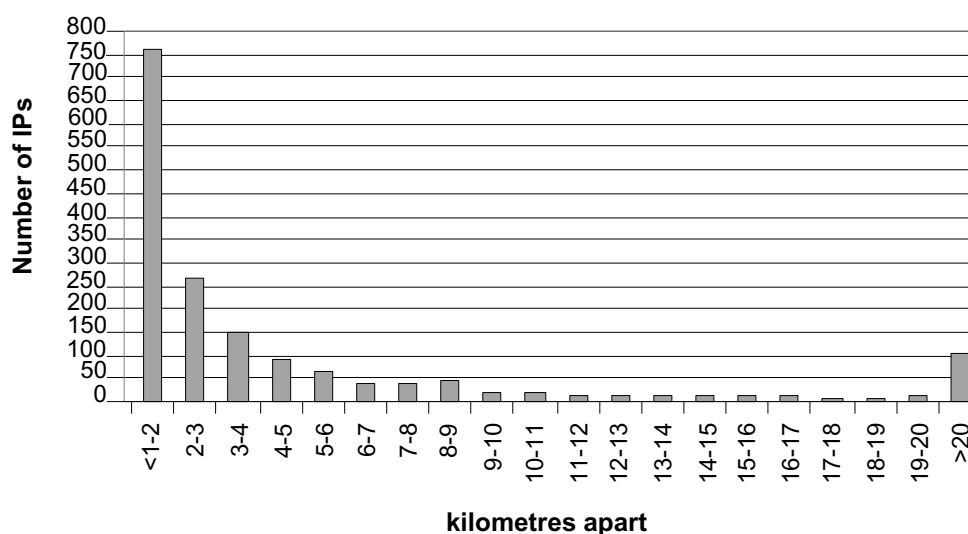
112. Another analysis of the current outbreak, based on 1,704 premises and set out in the table and graph below, clearly illustrates that the premises most likely to be infected with disease are less than 2km from existing IPs. (The map references used to determine distances are single points usually based on the farmhouses or areas where animals have been examined, rather than farm boundaries. Accordingly, even directly contiguous premises will tend to appear to be separated by some distance. Contiguous Premises generally fall within the range of 0-2km from IPs).

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[Continued

## DISTRIBUTION OF IPs BY DISTANCE FROM NEAREST IPs WHICH HAD AN ONSET OF CLINICAL SIGNS IN THE PREVIOUS SEVEN DAYS

| <i>Distance/km</i> | <i>No of IPs</i> | <i>%</i>   |
|--------------------|------------------|------------|
| < 1-2              | 763              | 44.8       |
| 2-3                | 265              | 15.6       |
| 3-4                | 148              | 8.7        |
| 4-5                | 93               | 5.5        |
| 5-6                | 63               | 3.7        |
| 6-7                | 41               | 2.4        |
| 7-8                | 42               | 2.5        |
| 8-9                | 43               | 2.5        |
| 9-10               | 21               | 1.2        |
| 10-11              | 18               | 1.1        |
| 11-12              | 15               | 0.9        |
| 12-13              | 12               | 0.7        |
| 13-14              | 12               | 0.7        |
| 14-15              | 15               | 0.9        |
| 15-16              | 14               | 0.8        |
| 16-17              | 11               | 0.6        |
| 17-18              | 6                | 0.4        |
| 18-19              | 7                | 0.4        |
| 19-20              | 10               | 0.6        |
| > 20               | 105              | 6.2        |
| <b>Total</b>       | <b>1,704</b>     | <b>100</b> |



113. The evidence therefore demonstrates that the premises at greatest risk of going down with disease are those which are closest to existing IPs because of the mechanisms of local spread outlined above. In summary, the risk of a premises succumbing to disease is inversely proportional to its distance from an IP. The closest premises, the contiguous premises, are at most risk and this risk diminishes the further away from the IP the premises are located. More than 3km from the IP the risk is deemed to be such that the less severe controls of the surveillance zone can be applied. Beyond 10km the risk falls to such a level that providing there are no special factors such as wind borne spread to consider then no special measures need be taken. Premises within the 3km protection are therefore considered to be at special risk of exposure to the virus. This is based on expert veterinary and epidemiological advice and on experience of dealing with the disease in practical situations around the world. It is for this reason that it is believed that susceptible animals on contiguous premises are exposed to infection and likely to succumb to disease.

114. The objective of the contiguous cull policy is therefore to cull the exposed animals on contiguous premises before they succumb to infection and in turn excrete virus further contaminating the environment and spreading disease.

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[Continued

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115. The contiguous cull policy developed as a result of the above expert epidemiological advice, including from a number of different University institutions and from the Government's Chief Scientific Adviser following discussions in the Science Group; and the continued rapid spread of FMD around the UK. In particular, in light of the epidemiological evidence that the virus was spreading rapidly, including in the immediate vicinity of infected premises by air, but also by people and animal movements, and that the single most important consideration for control and eradication was quick identification and slaughter, it was considered that (subject to limited exceptional circumstances) premises holding susceptible animals that neighbored (ie were directly contiguous to, or separated only by a barrier such as a small road or river) an infected premises had been exposed to the virus.

*Question 261: I have the classical swine fever report referred to in paragraph 2.50 of the NAO Report. Who saw that in the Department in top management and when did they see it?*

#### CSF REPORT

116. Material gathered by the small SVS Team charged with learning lessons from the CSF outbreak was presented at a national meeting of SVS managers on 5 December 2000. Over 40 people attended including most Divisional Veterinary Managers, the Regional Heads of Veterinary Service, the DCVO (Services) and the MAFF Risk Coordinator. The "Powerpoint" presentation was subsequently placed on the MAFF intranet where it was accessible to all members of staff.

117. The team made a further presentation of the report to the CVO, DCVO (Policy) and DCVO (Services) on 13 December 2000.

*Question 261: Protecting the export trade was often used as a justification for the policy, so any statements or notes, documents, which justify that, anything which justifies the statements that it was done to protect the export trade?*

#### THE CONSEQUENCES OF DIFFERENT DISEASE ERADICATION POLICIES FOR REGAINING THE UK'S FMD FREE STATUS IN 2001

118. It is necessary to appreciate how international trading standards in live animals, animal products and germplasms are set in order to understand the international consequences for the UK of adopting different FMD eradication policies.

119. This paper describes the role of the Office Internationale des Epizooties (OIE), the international animal health organization, outlines the guidelines it sets down for trade between countries of different FMD status and the consequences for UK of adopting different eradication policies.

#### *The OIE*

120. The OIE is an international animal health organization comprising some 158 member countries. It is one of three bodies recognized under the international Sanitary and Phytosanitary Agreement (SPS) as an international standard setting body. The others are the Codex Alimentarius and the International Plant Protection Convention. Information about the OIE can be found on its website [www.oie.int](http://www.oie.int). Guidelines for international trade are embodied in the OIE Code which is made up of Chapters each dealing with a specific disease. FMD is dealt with in Chapter 2.1.1.

#### *Country classifications for FMD*

121. The OIE accords country animal health status in respect of FMD. There are three classifications:  
"FMD Free country or zone where vaccination is not practiced  
FMD free country or zone where vaccination is practiced  
FMD infected country".

122. The UK's FMD status at the start of the 2001 epidemic was "FMD free without vaccination". This was lost immediately disease was confirmed on 20 February 2001 and was restored on 22 January 2001 after the UK Government satisfied the OIE that it had eradicated FMD and carried out adequate surveillance to show disease was no longer present in the country.

123. The OIE sets down rules for the acquisition of FMD status and for restoring status following an FMD outbreak. If an FMD outbreak occurred in a country that was classed as FMD free without vaccination, restoration of status would take place (a) three months after the last outbreak where the disease was eradicated by "stamping out" and serological surveillance was applied or (b) three months after the slaughter of the last vaccinated animal where stamping out, serological surveillance and emergency vaccination was

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[Continued

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applied, whichever is later. If emergency vaccination was carried out but the vaccinated animals were not slaughtered, then status would not be restored until 12 months after the last case of FMD (where stamping out is carried out) or after the last animal was vaccinated, whichever was later<sup>4</sup>.

124. Had the UK abandoned its stamping out policy and decided to control the disease through vaccination alone, its status would have reverted to FMD infected and it would not have been recognized as FMD free with vaccination until two years after the last outbreak of FMD was confirmed, that vaccination was being practiced and that an effective system of surveillance for FMD disease and the detection of viral activity was in operation. If such a country wished to change its status to FMD free without vaccination a waiting period of 12 months after vaccination had ceased would be required.

125. A further complication is that although the OIE allows for a country to be zoned for the purpose of categorization, such zones must be defined and be bounded by buffer zones, physical or geographical barriers which effectively prevent the entry of FMD virus. More importantly, perhaps, the OIE would have to approve the proposed zone and would only do this once a year when its International Committee meets.

#### *Trade in live animals, animal products and germplasm between countries of different FMD status*

126. The OIE lays down guidelines for trade based on the FMD status of the exporting country. These rules are complex and are set down in Chapter 2.1.1 of the Code.

FMD free without vaccination: There are no special requirements in respect of countries which are FMD free without vaccination other than they come from a country or zone that is FMD free without vaccination.

FMD free with vaccination: Exports of live animals would have to be certified that they showed no signs of FMD at the time of export, had been kept in an FMD free country since birth or for the past three months, that they had not been vaccinated and had given a negative result to a test for FMD antibodies when destined for a country which was FMD free without vaccination. In the case of fresh meat, bovine meat would have to come from animals slaughtered in an approved abattoir, be deboned and matured and the animal certified as having been in the FMD free country for three months prior to slaughter. In the case of fresh meat from other species (pigs and sheep) and meat products, the meat could only come from animals that had not been vaccinated.

FMD infected countries: The conditions for live animals would be more onerous still and would require guarantees in respect of the FMD status of the holding from which the animal originated plus a period in quarantine prior to export. In the case of meat and meat products, similar guarantees in respect of FMD freedom for the farm of origin and the surrounding area plus deboning and maturation of fresh meat from bovine animals or processing to ensure the destruction of the virus in the case of meat products. Fresh meat from non-bovine species could not be exported.

127. In addition to the above, there would also be controls on exports of semen, embryos, milk and milk products, straw and forage, and skins and hides, appropriate to the FMD status of the country.

128. In summary, the lower the FMD status of the country, the greater the penalty paid in terms of the export guarantees required. In addition such guarantees would all have to be attested to through official certification requiring, in turn, greater supervision/oversight of both live animals and processing establishments. In practice, many countries go beyond OIE guidelines and ban all imports of animals, animal products and other products from FMD infected countries.

129. In the case of fresh meat, meat and dairy products, material for export would have to be kept separate from that destined for the domestic market. In addition the certification and processing could extend not only to the meat, meat products or dairy products but also to products that contained them such as chocolate, pizzas, instant drinks etc.

#### *The European Union*

130. The EU has a harmonized policy for the control of FMD based on all Member States being FMD free without vaccination. The FMD control Directive 85/511/EEC requires Member States to stamp out disease but makes provision for emergency vaccination in the event that an outbreak occurs. Vaccination would have to take place under terms agreed by the Commission and the Member States.

131. Since the introduction of the single market in 1992, no Member State had ever used vaccination to control an outbreak of FMD so the consequences of applying vaccination and not killing vaccinated animals had never been tested in terms of intra-Community trade or trade with other countries.<sup>5</sup> However, there would be a reasonable expectation that the EU would adopt a policy in line with the OIE guidelines and similar to that it applies in respect of trade with third countries that are not FMD free without vaccination.

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<sup>4</sup> The OIE rules on the waiting period where vaccination was used were changed in May 2002. In future the waiting period will be 6 months where it can be shown through discriminatory tests that vaccinated animals are not infected with FMD virus.

<sup>5</sup> Even the Netherlands eventually decided to kill all vaccinated livestock.

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[Continued

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CONSEQUENCES OF DIFFERENT DISEASE ERADICATION POLICIES FOR REGAINING THE UK'S FMD FREE STATUS

*A policy of stamping out disease together with emergency vaccination—vaccinated animals to be killed*

132. Had the UK adopted a policy of stamping out disease coupled with the use of emergency vaccination to control disease in certain areas and in which vaccinated animals were slaughtered, then restoration of its FMD free status without vaccination status would have followed three months after the last case of FMD or three months after the last vaccinated animal was slaughtered, whichever was later. There would have been no immediate effects on trade other than that resulting from the immediate export controls imposed on the UK by other EU Member States and third countries as a result of having active FMD on its territory.

133. The OIE has no statutory basis and its guidelines/rulings are not legally binding. Thus Member Countries are free to impose import bans or set import requirements that exceed the OIE guidelines and they are not obliged to accept an OIE decision or take action in response without first obtaining independent verification/clarification of the situation. Likewise a member country can choose to impose conditions on trade that go beyond the OIE guidelines if it feels this is necessary. For example, despite the OIE having restored our FMD free without vaccination status on 22 January 2002, the US has not officially recognized us as free of the disease and the US, Canada and Australia insisted on carrying out their own assessments of our FMD status.

*A policy of stamping out disease together with emergency vaccination—vaccinated animals to remain alive*

134. Had the UK adopted a policy of stamping out disease with the use of emergency vaccination in which vaccinated animals were allowed to live, then a return to normality in international trade would not take place until 12 months after the last case of FMD.<sup>6</sup>

*A policy of control based on vaccination alone, no stamping out*

135. Had the UK adopted a policy of not stamping out disease and had instead resorted to prophylactic vaccination, the consequences can only be speculated upon. This would have been uncharted waters for the UK and the EU as a whole. Under this scenario, the UK's FMD classification would have reverted to FMD infected and it would not have moved to FMD free with vaccination for two years after the last outbreak occurred. During this period, it is likely that exports of animals and animal products would have been subject to the OIE rules set down for an FMD infected country. In reality, many countries would be expected to ban all imports of animals as well as animal and dairy products unless the latter had been treated to destroy any FMD virus.

136. More importantly perhaps, the EU would have had within its boundary a Member State that was potentially infected with FMD. This could have had a major impact on the operation of the single market. We could reasonably have expected the export controls imposed by the EU at the start of the 2001 epidemic to have remained in place. It might also have affected the free movement of goods and people because other Member States would probably have been concerned that (a) their livestock industries were under threat of FMD and (b) their trade with third countries was affected because many treat the EU as a single region for animal health purposes. In summary, the presence of a country within the EU which was FMD infected or FMD free with vaccination could be expected to impact not just on trade in live animals and animal products but the myriad of products which contain animal and dairy products.

*Question 261: Finally in your evidence to the EFRA Select Committee there were 17 areas where you undertook to write to the EFRA Select Committee with further information. Perhaps you could provide us with a copy when you write to them?*

INFORMATION PROVIDED TO EFRA SELECT COMMITTEE

137. A copy of this document was provided but is not printed here.

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<sup>6</sup> 30 September 2002 in the case of the 2001 epidemic.

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[Continued

*Question 264: Mr David Rendel would like to know whether we could have a note on how many vets have been employed in the Government Veterinary Service each year since 1990?*

#### NUMBERS OF VETS IN THE STATE VETERINARY SERVICE

138. The Table below shows the total number of veterinarians employed in the State Veterinary Service (SVS) on a full-time equivalent basis since 1990. The management structure of the SVS has changed considerably in that time, so these figures should not be used to compare veterinary manpower over the years.

139. At the outset, the figures included all the managerial, structural and research grades. However some of these were removed from the SVS with the establishment of Agencies, eg the Central Veterinary Laboratory (CVL), which previously formed part of the SVS, became the Veterinary Laboratories Agency (VLA) in April 1990. The Veterinary Investigation Service became part of the VLA on 1 October 1995 and is excluded from these figures from that date. In 2000, there were 99 veterinarians employed by VLA. Veterinary surgeons responsible for meat hygiene work transferred to the Food Standards Agency in 2000. The figures for these Agencies have not been included in the SVS figures from the respective dates.

140. This demonstrates that although there has been a significant reduction in the management structure of the SVS, the number of field veterinarians has remained approximately stable, varying slightly according to the ease of recruitment. For example in 1990 there were 206 Veterinary Officers (VOs), in 1995 there were 234 and in 2001 there were 220. The VOs are located in Animal Health Divisional Offices and are responsible for carrying out the front-line work of the SVS under the control of a Divisional Veterinary Manager.

141. The work of veterinary staff in the SVS is supplemented by approximately 100 Temporary Veterinary Inspectors (TVIs), and over 7,000 Local Veterinary Inspectors (LVIs) from the private sector in normal times.

#### THE NUMBER OF VETERINARY SURGEONS EMPLOYED BY THE STATE VETERINARY SERVICE AS AT 1 JANUARY\* SINCE 1990 (FULL TIME EQUIVALENT BASIS)

| <i>Year</i> | <i>No of vets</i> |
|-------------|-------------------|
| 1990        | 430.5             |
| 1991        | 408.0             |
| 1992        | 414.5             |
| 1993        | 420.0             |
| 1994        | 408.3             |
| 1995        | 394.5             |
| 1996        | 301.2             |
| 1997        | 289.5             |
| 1998        | 302.0             |
| 1999        | 283.0             |
| 2000        | 284.0             |
| 2001        | 286.0             |
| 2002        | 336.8             |

\*The figures for 2002 are as at 1 April.

*Question 265: You did mention the impact of the closure of footpaths on rural tourism and you said your policy would be different now and you would not be imposing a blanket policy. Perhaps you could let us have a note on that because we did not go into any detail on footpaths and that is an important point?*

#### RIGHTS OF WAY

142. When FMD broke out in February 2001, local authorities were initially encouraged by MAFF to use the existing statutory powers to close public rights of way in Infected Areas (minimum 10km radius zones around a case of the disease). At that stage new cases were occurring in widely dispersed areas of the country, and it was not known to what extent the disease was present in the sheep population. Therefore, on 27 February, authorities were given additional powers to close rights of way (with the consent of the Minister) outside the then Infected Areas; such consent was readily given when authorities asked for it. The new statutory instrument also temporarily amended existing legislation to permit "blanket" closure of extensive areas without the need to display notices on individual paths. In the prevailing uncertainty, almost all rural and many urban authorities used these powers to close paths throughout their areas.

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143. From 22 March, DETR and MAFF, later DEFRA, published successive guidance to local authorities, informed by veterinary risk assessments, urging them to reopen paths where safe to do so. However, the closures, once imposed, took a long time to reverse, even where no longer justified by the guidance and risk assessment. Some were eventually revoked by Ministers without the consent of local authorities.

144. The closures contributed substantially towards the severe impact on the rural economy of the FMD outbreak and the measures to control it. Many small businesses that depend on countryside visitors were badly affected. Some holiday areas depend almost entirely on visitors wishing to walk in the hills. More generally, the closure of rights of way, alongside images of the burning and burying of animal carcasses, was widely perceived by the public at home and abroad as meaning that the countryside was closed. People who would otherwise have visited the countryside were also deprived of the benefits such visits can bring.

145. In their reports on the effects of the outbreak on the wider rural economy, published on 18 October 2001, both Lord Haskins and the Rural Task Force commented on this issue, and the Rural Task Force recommended that a protocol be drawn up to provide guidance on how far restrictions on public access to the countryside should be imposed during any future outbreak of FMD or other animal disease. The guidance should take account of the impact on walkers and the businesses that cater for them, besides the requirements of disease control. The Government indicated in its response to those two reports, published in December 2001, that it accepted this recommendation in principle. This note sets out the Government's proposals for deciding whether rights of way should be closed, and by whom those decisions should be taken, in any future outbreak of FMD.

146. The approach set out here is based on the lessons learnt from the 2001 outbreak. It will be further reviewed in the light of the recommendations of the "Lessons learned" Inquiry and Royal Society scientific review. It should be borne in mind that the nature and circumstances of any future outbreak may differ from those of the 2001 outbreak, so the approach may need to be adapted to the type of outbreak then being faced.

147. The Government's policy is that decisions whether to close rights of way and other countryside access should take into account both the requirements of disease control (informed by veterinary risk assessment), and the likely impact on rights-of-way users and businesses that depend on them. This means, in relation both to the powers conferred on local authorities and the advice given them, and to consideration of specific proposed closures, that account needs to be taken both of the risk that path users could spread disease, and of the value of rights of way to users and to the local economy.

148. The Government's proposed approach will be to:

- (a) keep in place the existing legislation, which permits closure of paths by an Inspector of DEFRA or the local highway authority in Infected Areas and (with the consent of the Minister) in Controlled Areas, by the display of a notice to that effect; the power, temporarily taken, to allow "blanket" closures, would not be reinstated, so all closures would have to be signed;
- (b) retain the position that decisions whether to exercise the powers should normally be taken by the local highway authority, with the benefit of advice from DEFRA: local authorities have general responsibility for rights of way and access to authoritative local information; paths on Infected Premises and "dangerous contacts" would continue to be closed directly by the service of notices by the Divisional Veterinary Manager;
- (c) ensure that, from the earliest possible stage in an outbreak, guidance would be available to local authorities, backed by an up-to-date veterinary risk assessment, advising them on how they should take into account both the risk that the disease might be spread by walkers, and the potential for damage to the local economy arising from closures; and
- (d) give high priority to ensuring that information is readily available to the public about which paths were closed; substantial progress has already been made, during and since the FMD outbreak, on improving access to information about footpaths.

More attention would also need to be given to improving understanding on the part of walkers and farmers. During the 2001 outbreak that many farmers clearly found it hard to understand why paths should be reopened across their land when movement of their livestock remained restricted and they were urged to maintain tight biosecurity.

149. Current veterinary advice, based on what is known about the 2001 outbreak, is that, for an outbreak of the same type as in 2001, outside 3 km Protection Zones (PZs) around Infected premises the risk of walkers and other path users spreading the disease is very small indeed. As a result, were there to be another outbreak of the same type, rights of way within PZs should be closed, but those outside PZs may safely be kept open. (Farmers and others regularly in contact with animals or farm areas where animals regularly congregate are most likely to come into contact with the disease without realising it, and outside PZs should therefore be subject to stricter biosecurity measures than path users.)

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[Continued

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150. On the basis of this advice, although local authorities would retain power to close paths within Infected Areas (a minimum of 10km radius around Infected Premises) without consent, DEFRA's guidance is expected to be that paths should be closed only within 3km PZs; and consent would not be given for closures outside Infected Areas. It should be stressed, however, that both the veterinary risk assessment and the guidance would be subject to review in the light of the circumstances of any future outbreak.

*Question 265: Looking to the future, you have issued an interim contingency plan for foot and mouth disease which draws on the experience and what we have learned from 2001. We should be interested to know what you are doing to revise your contingency plans for other animal diseases in the light of what happened in 2001?*

#### INTERIM FMD CONTINGENCY PLAN AND CONTINGENCY PLANS FOR OTHER ANIMAL DISEASES

151. DEFRA is working on the revision of contingency plans for other notifiable animal diseases. Work is underway, under the auspices of a Programme Management Board, to take forward the lessons learnt during the last outbreak and apply them to plans for other animal diseases. A generic and modular format is being considered for contingency plans for all animal disease outbreaks. This will require careful deliberation by veterinarians, stakeholders and other operational partners.

152. Future plans will further emphasise risk-assessment and scenario planning (to include consideration of the economic, environmental and financial impacts of disease control) with regard to both FMD and other diseases.

*Questions 265 and 266: We have mentioned vaccination and the Royal Society Report, which I know is coming out very shortly. When that report does come out, I should be interested to have your observations on it. ? In the context of what we have been asking you, particularly given Mr Geraint Davies's questions . . . Perhaps the cost implications of annual vaccination for cows?*

#### VACCINATION

153. The Government's initial reaction to what the Royal Society Study, and the lessons to be learned Inquiry, said on vaccination was contained in a Parliamentary Written Answer on 16 July (HC Deb, 16 July, col 140w), and the Secretary of State's oral Statement on 22 July (HC Deb, 22 July, col 669–688).

154. In 1987, the EC carried out a cost-benefit analysis of prophylactic vaccination compared to stamping out. It estimated that the cost of vaccination in the UK in the same year would be £18.6 million (in 1987 prices, equivalent to £31.9 million in 2002 prices), based on the costs of vaccine, vaccination and general administration, but not possible side effects. This study formed part of the argument for the prohibition of prophylactic vaccination in the EU, which came into effect in 1992.

155. The most recent cost assessment of prophylactic vaccination was carried out by the Veterinary Economics and Epidemiology Unit (VEERU) at Reading University. This work was commissioned by The Royal Society Inquiry into Infectious Diseases of Livestock. VEERU developed a model to estimate the costs of prophylactic vaccination which estimated that a vaccination strategy that achieves 90% coverage of the UK cattle population would cost £31 million per year. However, the report also noted that this strategy would not guarantee that the national herd would be immune to the disease.

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SESSION 2002-03

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