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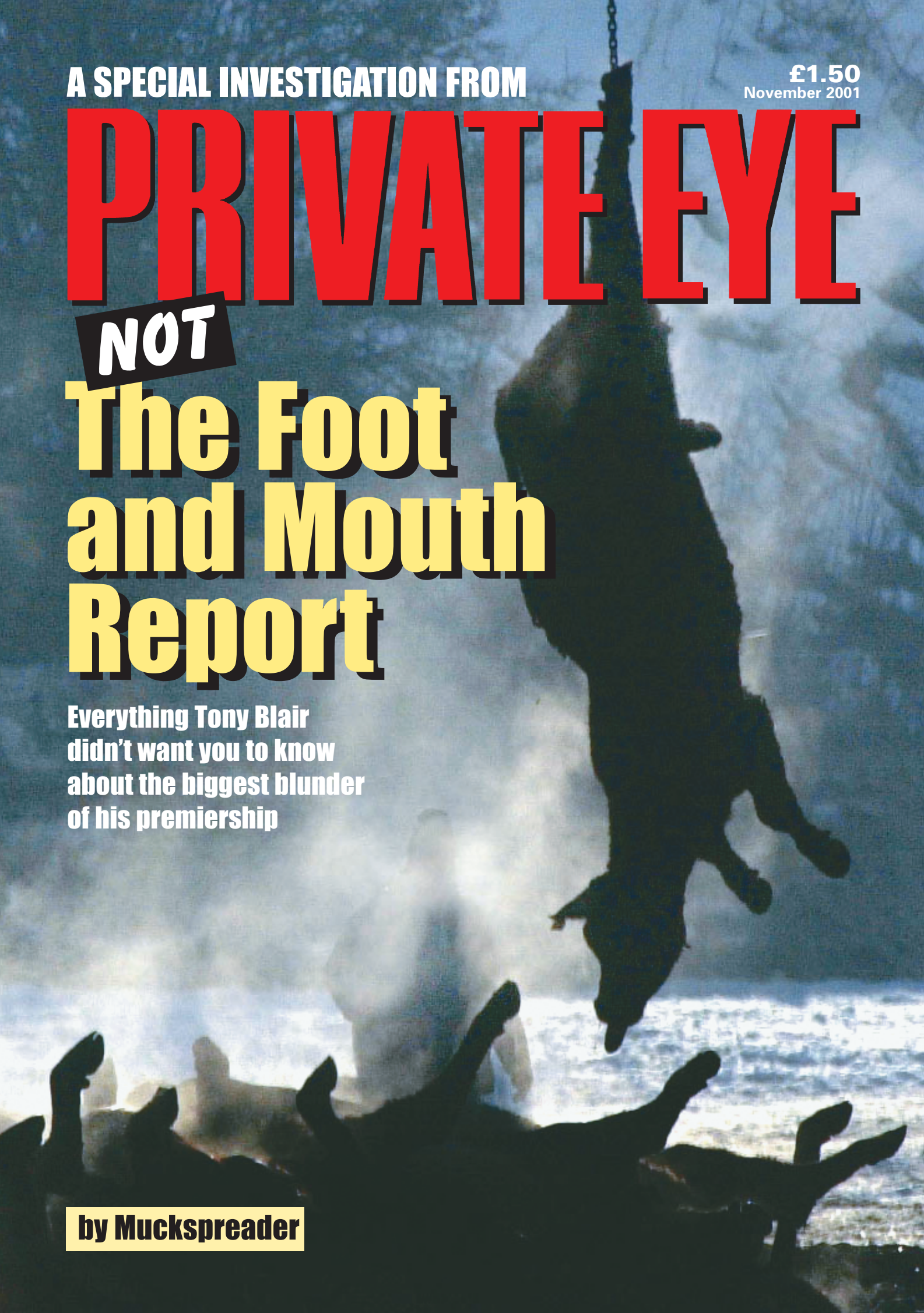
PRIVATE EYE

NOT

The Foot and Mouth Report

Everything Tony Blair
didn't want you to know
about the biggest blunder
of his premiership

by Muckspreader



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Boring Initials: A Quick Guide

DEFRA	Department of the Environment, Food and Rural Affairs (replaced MAFF after June 2001 election).
FMD	Foot-and-mouth disease.
IAH	Institute for Animal Health, Pirbright, Surrey, MAFF's main FMD research centre and reference laboratory.
MAFF	Ministry of Agriculture, Fisheries and Food (abolished after the election and replaced by DEFRA).
NFU	National Farmers' Union (representing 30 percent of British farmers, under president Ben Gill).
OIE	Office Internationale des Epizooties (based in Paris, worldwide rule-making body on issues related to animal diseases, including trade).
SVC	Standing Veterinary Committee (based in Brussels, the key European Union policy-making body on veterinary matters).

How The Crisis Unfolded: Key Dates

February 2001

- 19 FMD first officially spotted in pigs at Cheale's abattoir, Essex.
- 20 FMD officially confirmed by MAFF.
- 21 European Commission bans UK meat exports worldwide.
- 23 MAFF identifies FMD at Heddon-on-the-Wall pig farm, Northumberland, and speculates this was the original "focus".
- 28 Outbreaks rise to 26, between Northern Ireland and Devon.

March

- 6 Outbreaks up to 96. Sir John Krebs arranges for Prof Roy Anderson to present computer findings that epidemic is "out of control".
- 11 Up to 164. Nick Brown says epidemic "under control".
- 14 EU warns "no vaccination"; Krebs orders MAFF to hand data to Anderson.
- 18 Outbreaks up to 303.
- 20 Up to 348. Ben Gill pleads with Tony Blair to speed up slaughter and disposal programme.
- 21 Up to 411. Prof David King takes charge; epidemic "out of control", Prof Anderson tells *Newsnight*.
- 22 Blair shocked by visit to Cumbria; army's role stepped up; King appoints Anderson as his chief FMD adviser.
- 27 Peter Kindersley applies for high court injunction to switch "contiguous cull" policy to vaccination.
- 28 UK asks Brussels for permission to vaccinate in Cumbria and Devon.
- 29 Outbreaks up to 729.
- 31 60 new outbreaks, worst day of epidemic, bring total to 846.

April

- 2 Blair summons pro-vaccination campaigners, postpones election to 7 June.
- 4 Outbreaks top 1,000, reaching 1,020.
- 9 Outbreaks up to 1,137.
- 12 Secret Chequers meeting on vaccination.
- 23 Brown pulls rug on Blair's vaccination plan to MPs.
- 25 King shows MPs Anderson's graph predicting epidemic over by 7 June. "Phoenix the calf" saved; MAFF cancels contiguous cull on cattle.
- 30 Outbreaks reach 1,517.

May

- 2 King tells MPs epidemic "tapering off".
- 11 MAFF backs down on Exmoor cattle cull.
- 13 "Reign of terror" begins around Knowstone, Devon.
- 17 Daily outbreak figure hits zero for first time.
- 18 MAFF out in force around Settle, N. Yorks.
- 31 Outbreaks reach 1,718.

June

- 7 Blair's election victory.
- 12 Trading Standards Institute calls for public inquiry.
- 15 Royal College of Veterinary Surgeons calls for inquiry.
- 21 High court reprieves Grunty the pig.

July-August

- New outbreaks round Thirsk threaten E. Yorkshire pig farms; serological testing and mass-cull on Brecon Beacons.
- 9 August: Blair announces three inquiries.

NOT The Foot And Mouth Report

Introduction

IF EVER there was a national disaster which cried out to be investigated by a genuinely independent and comprehensive public inquiry, it was how the outbreak of foot-and-mouth (FMD) which hit Britain in 2001 was allowed to escalate into the worst epidemic of the disease the world had ever seen.

It soon became clear that this was not just the biggest single catastrophe British farming had ever known. It had inflicted enormous damage on Britain's economy. And its wider social and environmental consequences ran so deep they would be felt for years to come.

Yet how much of this devastation might have been avoided? Right from the start immense question marks had begun to multiply over every aspect of the way Tony Blair's government responded to this crisis.

Why did the disease spread so rapidly? Why did the government seem so wilfully to ignore all the recommendations of the official report on Britain's last major foot-and-mouth epidemic in the 1960s?

Why all the delays in slaughter and disposal of diseased animals? Why the horrendous funeral pyres? Why the government's seemingly reckless disregard for "biosecurity", as truckloads of infected carcasses were driven round the countryside, through uninfected areas?

Why was control of the epidemic handed over to scientists who had no experience of animal diseases? Why were they allowed to order a "contiguous cull" policy, slaughtering millions of uninfected animals, which the government's own senior foot-and-mouth advisers argued was scientifically flawed, and which was not even legally authorised?



Why did the government ignore the unanimous view of world experts on foot-and-mouth that Britain should have opted for a mass-vaccination programme?

Why was opposition to vaccination based on such widespread misrepresentation of both science and the law? Why did official policy remain centred on a desire to reestablish Britain's export trade in meat and live animals rather than on the use of modern scientific methods to bring the disease to an end?

Why, as the election approached at the end of April, did the government begin to distort its published figures on a massive scale?

Why, in pursuit of this mass-slaughter policy, killing more than a eighth of all the farm animals in the country, were government officials allowed to breach animal welfare regulations on a scale without precedent?

Why were government officials so high-handed and secretive in their dealings with the farming community, and with many experienced local vets, leading to a complete breakdown of trust?

Why did politicians go out of their way

to put blame for spreading the disease on farmers, for errors which were far more obviously being made by their own officials?

Why did politicians make so many contradictory statements about the state of the epidemic as they tried to make out that the countryside was "open" to tourism, while thousands of families remained virtually imprisoned on their farms, unable to earn a living?

Why, after repeated claims that the government's mass-slaughter programme was bringing the epidemic "under control", was it clear after seven months that the policy had wholly failed in its central objective:

to restore Britain's export trade more quickly than might have been achieved by any other means?

Finally, why, when Mr Blair at last responded to the mounting clamour for a full public inquiry into all that had happened, was his answer to set up three separate "pseudo-inquiries", meeting behind closed doors, which seemed carefully designed to ensure that none of the serious questions arising from this catastrophe would get the honest answers they deserved?

It was Mr Blair's attempt to bury the real questions arising from the 2001 foot-and-mouth disaster which inspired the compilation of this report. It sets out the story of how the disaster unfolded, in nine chronological stages. Each section gives a brief account of the main events taking place during that stage of the crisis; and the first five are accompanied by a background commentary on what the government was trying to conceal during that part of the story. The report ends with a brief summary of the main lessons to be drawn from an agricultural catastrophe for which there was no precedent.

Stage One: How The Epidemic Began, 19-28 February

ON THE morning of Monday 19 February 2001, Craig Kirby, 29, a veterinary surgeon working for the government's Meat Hygiene Service at Cheale Meats abattoir in Little Warley, near Brentwood in Essex, was carrying out a routine inspection of pigs delivered from Buckinghamshire and the Isle of Wight. He had already noticed the previous Friday that some of the pigs were unusually lethargic. Now he saw blisters, possible signs of foot-and-mouth. It was a disease he was too young to have seen before because the last major epidemic in Britain took place in 1967/8, before he was born.

Mr Kirby said later that he was "stunned" and "shocked". At 11.36am he informed a senior official at the Ministry of Agriculture, Fisheries and Food (MAFF), then halted all operations at the abattoir. "I had always hoped that I would never see the disease," he said, "but I was sure it was foot-and-mouth, and I had to act quickly because it spreads at a frightening speed."

Ministry vets immediately identified farms in Buckinghamshire, the Isle of Wight and Yorkshire from which the sick pigs had originated. A bull on a farm belonging to Cheale Meats next to the abattoir was confirmed with FMD, and

When is an epidemic not an epidemic?

■ A TRICK the government was to use throughout the crisis was to refer to what was happening as the foot-and-mouth "outbreak". Technically, one infected animal constitutes a "case", two or more in the same flock or herd an "outbreak", more than one outbreak an "epidemic". Ministers and government spokesmen were noticeably careful to avoid use of the word "epidemic", even though this was what it was from day one. This misuse of terminology was so consistent it cannot have been accidental.

Why FMD is so serious

■ FOR well over a century the foot-and-mouth virus had been feared by anyone connected with agriculture as much as any other disease affecting animals. It is highly contagious and spreads with remarkable speed, causing highly painful blisters in and around the animals' mouths and feet, and severe lameness.

It is particularly serious in cattle and pigs, for whom the disease can prove fatal. Those animals which survive may remain severely debilitated, causing weight loss and serious reduction in milk yields. For economic as well as animal welfare reasons, the virus is thus regarded as a major enemy, calling for drastic counter-measures and extreme vigilance.

In Taiwan, where until 2001 the worst epidemic of FMD ever recorded affected the intensive pig-farming industry in 1997, one million pigs died and more than three million were slaughtered. The disease is much less obviously harmful to sheep, in which it may often be hard to detect. Most recover without evident after-effects, and although Britain's 2001 epidemic was first identified in pigs and cattle, the fact that it turned out to be primarily sheep-borne was a major complicating factor.

destroyed immediately, along with 49 other cattle. Within hours five-mile movement restrictions had been imposed round the farms in Buckinghamshire and the Isle of Wight. The farm in Yorkshire was placed under surveillance. Arrangements were made for all the animals at the abattoir and on surrounding farms to be destroyed.

The following day, after tests at the government's FMD laboratory in Pirbright, Surrey, MAFF's chief veterinary officer Jim Scudamore officially confirmed that this was indeed foot-and-mouth. Apart from a minor outbreak in the Isle of Wight in 1981, it was the first serious incidence of the disease in Britain for 34 years.

When the news that FMD had been identified in Britain was flashed to Brussels, on Wednesday 21 February the European Commission immediately used its powers to impose a worldwide ban on all exports from Britain of livestock, meat and animal products, to last until 1 March. The cost of this ban alone was estimated by the Food and Drink Federation to be £50m.

Looking obviously shaken, the minister of agriculture Nick Brown said: "The impact of this outbreak on our export trade is substantial." Government chief vet Mr Scudamore confirmed that MAFF was investigating whether the infected pigs had been fed on illegally imported meat. But three days after the virus was first identified, movements of animals around the country had still not been banned.

By Friday 23 February the number of confirmed outbreaks had risen to six. The Institute for Animal Health's laboratory at

Pirbright had by now discovered that the Essex outbreak was caused by the O pan-Asian serotype of FMD (known as "Pan-Asian O"). This was a comparatively new strain of the disease already responsible for outbreaks in 20 countries, including Japan, Korea, Mongolia and Russia, and closely linked to a strain found in South Africa, one of many FMD-infected countries from which Britain imported meat.

After consulting the prime minister by telephone in Washington, agriculture minister Nick Brown at last announced a complete ban on animal movements throughout Britain for seven days. The Ramblers' Association urged its members to stay out of the countryside. Farmers began erecting notices asking the public to stay off their land. All hunting was voluntarily called off for a week.

Just as Ben Gill, president of the National Farmers' Union (NFU), was expressing the hope that the outbreak might still be confined to Essex, a spokesman for the National Pig Association said: "MAFF is running all over the country trying to find the source. It's like trying to find a needle in a haystack. Until they have that source, what can they say?"

Nothing was more vital to the MAFF vets (now desperately over-stretched because of a halving of their number by public spending cuts in the Thatcher years) than to discover where the disease had originated. And on that same day they came across a further new suspected outbreak at Heddon-on-the-Wall in Northumberland. This was at a pig farm owned by two brothers, Bobby and Ronald Waugh, which had sent pigs down to Cheale's abattoir in Essex.

By the following day, Saturday 24 February, while two more suspected outbreaks were being investigated in Gloucestershire, along with one in Scotland and one in Northern Ireland, MAFF vets were already beginning to talk as if they had identified the Waugh's Burnside pig farm at Heddon-on-the-Wall as the original "focus" from where the disease had spread.

For several months the farm had been the subject of complaints from animal

welfare campaigners, leading to investigations by the RSPCA, MAFF and local trading standards officials, even though on 22 December ministry inspectors had found the pigs there "fit and healthy", and a further inspection as late as 24 January had shown no signs of foot-and-mouth.

On Sunday 25 February a seventh outbreak was reported in sheep near Okehampton in Devon. On Monday 26 February four more were reported: one in Wiltshire; one in Herefordshire; and two more in Devon, where 600 cattle and 1,500 sheep were to be destroyed on a farm owned by a prominent dealer, Willy Cleave, who had 12 separate holdings around the village of Hatherleigh.

Richard Haddock, a senior NFU representative in Devon, said: "Real fear is gripping the farming community. Everyone down here is petrified." On the continent, meanwhile, as fears spread that animals imported from Britain might have introduced the disease to Holland, France and Germany, 300 tractors blocked roads into Brussels ahead of a meeting of EU farm ministers. Bernard Vallat, director-general of the Office International de Epizooties (OIE), a worldwide body which lays down international trade rules concerned with animal diseases, said: "If the virus spreads to the continent, the entire EU would risk losing its status as free of foot-and-mouth disease."

By Tuesday 27 February nearly 7,000 cattle, sheep and pigs had been destroyed in various parts of the country. The Countryside Alliance decided to call off its London march scheduled for 18 March. By Wednesday 28 February the number of confirmed outbreaks had risen to 26, in areas from southern Scotland and Northern Ireland to Devon.

The government took emergency powers to close off hundreds of thousands of miles of footpaths, shutting off much of Britain's countryside to tourism. As there were now reports of sheep imported from Britain testing positive in Germany, the regional agriculture minister for North Rhine-Westphalia said that Germany could be "on the brink of a catastrophe".

After little more than a week it was clear that Britain was experiencing its first major foot-and-mouth epidemic for 34 years. The difference, though, was that in 1967/8 the disease had been largely confined to cattle in just one small area of the country: Cheshire and Shropshire. This time it was not only showing itself in three different species — pigs, cattle and sheep — but it had already spread over an area covering the entire west side of Britain, stretching more than 400 miles. It was evident that, in trying to combat the disease, the government was now faced with a problem of a wholly different magnitude.

Itinerary of a virus

■ THE foot-and-mouth virus has been identified in seven main strains, and dozens of sub-strains.

Pan-Asian O, the latest to appear, was first identified in India in the early 1990s. It first spread westward to the Middle East, then to the Far East. It reached south-eastern Europe in 1996, in the epidemic in Macedonia and the southern Balkans. It first reached western Europe when it came to Britain in 2001.

What They Did Not Want Us To Know

How and when did the outbreak really begin – and why was this significant?

ALTHOUGH MAFF continued to refer to the Waugh pig farm at Heddon-on-the-Wall as the original source of the outbreak, it was never able to produce conclusive evidence to support this.

For political purposes it was convenient to identify Burnside farm as the source, not least because it was an intensive pig unit which had aroused intense criticism on both hygiene and welfare grounds (MAFF was eventually to bring a series of criminal charges against the Waugh brothers for the way they had allegedly run their “dirty farm”).

There was equally no evidence to support the view, also fostered by MAFF, that the pigs there had become infected by eating swill containing contaminated meat imported from abroad, obtained either from Chinese restaurants in Newcastle or from a nearby British army barracks. The Albemarle barracks did use meat from Uruguay (a country with FMD), under EU procurement rules which require the British army to buy meat from the cheapest, usually non-British sources. But although it was politically convenient to identify pig swill as the cause of the epidemic (the government would later introduce severe restrictions on feeding swill to pigs), no proof that this was the original infectious agent was ever produced.

In fact circumstantial evidence increasingly suggested that the epidemic had **not** originated at Heddon at all; that foot-and-mouth had probably been around for months before it infected the Waugh’s pigs; and that the species initially infected had been sheep, in which the signs of FMD are often hard to detect.

Once the epidemic had been identified, a number of farmers in south-west Scotland, the north of England and south Wales recalled that their sheep had shown signs compatible with FMD — such as lameness, general debility and an abnormal tendency to abort — in January or even earlier. David Owen, of Farmers First, the organisation which ran the “farmers’ ferry” transporting large numbers of sheep and lambs across the Channel to the continent, recalled that, as early as the previous October, he had noticed an unusual number of farmers from the Brecon Beacons and south Wales beginning to report that sheep they had booked on to the ferry were too ill to travel, showing signs which in retrospect he recognised as compatible with FMD.

On 31 January, Hugues Inizan, a Breton-born dealer living near Plymouth, used the “farmers’ ferry” to transport 402 sheep from around Abergavenny, Crickhowell and Builth Wells in south and mid-Wales to Normandy. After the first reports of foot-and-mouth in Britain, Marc Nozin, a French farmer who had bought half the sheep, asked the French authorities to test them. Seven of 31 sheep sampled showed up as “highly positive” for foot-and-mouth. On 7 March all the animals on M. Nozin’s farm were slaughtered. Yet these were sheep which had been transported to France, with health certificates signed by Welsh Assembly vets, nearly three weeks before FMD was officially identified.

All this made it seem totally implausible that the disease had originated at the Waugh’s pig farm. FMD is quickly identifiable in pigs and the ministry inspector who visited the farm on 25 January had seen no sign of it. What was far more likely was that the pigs had caught it from nearby sheep rather than the other way around.

Inevitably the lack of hard scientific evidence encouraged widespread speculation as to the “true” origins of the infection, such as suggestions that it had come from a phial of live Pan Asian O virus

stolen by animal rights activists from Pirbright or the Ministry of Defence’s biological warfare research centre at Porton Down; or that it had escaped from a MAFF experimental farm in the north of England, where the ministry had been testing vaccines.

This speculation was fuelled further by evidence that, in the weeks immediately preceding official identification of the first outbreak, MAFF had been making inquiries about the availability of railway sleepers and other combustible materials, specifically linked to contingency plans for any outbreak of foot-and-mouth.

Fran Talbot, whose husband ran a timber company at Wootton in Staffordshire, reported that she had been called by MAFF at the beginning of February. Another timber merchant, Mike Littlehales, of Seighford, near Stafford, had had a similar call from MAFF asking if he could “supply timber in case of foot-and-mouth”, because MAFF officials had wanted to “update their records”. When two weeks later the first outbreaks were reported on the news, Mr Littlehales recalled saying to his wife: “That seems very strange, that lady phoning me up a couple of weeks ago about the timber for foot-and-mouth. I wonder if they already knew then?”

Until more complete evidence comes to light, the question as to how the epidemic began and whether or not MAFF had advance warning must remain open. Veteran FMD experts recall that such rumours about their origins were not unfamiliar in earlier epidemics. What is far more important, however, in terms of assessing the government’s response to the appearance of the disease, is the near-certainty that it had been spreading through the national sheep flock for weeks and probably months before it was officially identified.

The significance of this emerged very quickly when, within days, it

became apparent just how many areas of the country were affected. This made the 2001 epidemic totally different from the tightly-focused 1967/8 epidemic, which had been concentrated in just one, comparatively small area.

The traditional veterinary response to FMD, since the 19th century, has been to stamp as hard as possible on the disease when it first appears, by killing all the animals in the herds or flocks infected, in the hope that it can be confined to “stage one” of its potential spread. “Stage two” is where it spreads outwards from the initial focus of infection, when inevitably it becomes increasingly hard to control. “Stage three” is where it becomes a “multi-species” infection and begins to pop up in all sorts of places not obviously connected to the original focus, by which time it has become an epidemic out of control.

The problem with the 2001 epidemic was that, by the time it was officially recognised, it had already reached “stage three”. Yet the response of the ministry was to try to treat it as if it was still in “stage one”, a focused outbreak which could still be controlled by “stage one” methods. From this point on, MAFF was always to remain way behind the game, with a disease which, nine days after it been identified, was already raging across 400 miles of Britain’s countryside.

Why did it spread so fast? The ‘black sheep’ economy

THE initial red herring was that FMD was first identified in pigs at an Essex abattoir; and that its original source was then identified, on very flimsy evidence, as a farm supplying pigs to that abattoir from 300 miles away in Northumberland.

This prompted the Conservative agriculture spokesman Tim Yeo to blame the spread of the disease on the mass-closure of Britain’s rural abattoirs, and MAFF’s inadequate response to the shortage of state vets. He overlooked the somewhat embarrassing fact that the closing down of three quarters of Britain’s slaughterhouses in 10 years had largely been due to the over-zealous application of EU hygiene rules by a Tory government of which Mr Yeo was a member; and that it

‘Evidence increasingly suggested the epidemic had not originated at Heddon at all; that FMD had probably been around for months before it infected the Waugh’s pigs...’



MAFF ‘scapegoat’ Bobby Waugh, whose Northumberland pig farm was ‘almost certainly not the source of the epidemic’

had similarly been due to Tory cuts that the State Veterinary Service had lost half its staff.

The chief reason for the rapid spread of FMD in 2001 lay in the remarkable number of sheep movements which had taken place round the country in the weeks preceding the first outbreak, and in the emergence of a "black sheep economy" created by the peculiar rules of the EU's sheep subsidy system.

As MAFF's vets attempted to trace "dangerous contacts", they soon discovered that many of the sheep suspected of spreading the infection all down the west side of Britain had recently passed through one of the country's largest sheep markets at Longtown, near Carlisle in Cumbria, and other markets in Welshpool and Northampton. Many of these had gone to a handful of big buyers, to be dropped around the country to allow the holders of EU sheep quota to make up the numbers of animals for which they had already claimed subsidies.

Late winter or early spring traditionally sees a large number of sheep movements, because this is the time of year when the previous year's lambs or "hoggetts" are sold on for fattening before Easter when new lambs come on the market. But in recent years this trade has been greatly extended by the rules of the EU's so-called "ewe premium" quota system. Farmers are allowed to claim "quota" for the number of sheep on which subsidies are due in November. But they are not obliged to show ministry inspectors how many sheep they actually possess until 4 February, the start of the so-called "retention period".

In the winter of 2000-1 quota had been absurdly cheap, partly because MAFF had over-estimated the previous year's sheep census by one million. A small minority of farmers had thus been buying up quota by the trailer-load, without having the sheep to justify it. There are of course draconian penalties for claiming subsidies on sheep which don't exist, which was why, around 4 February, there was a rush to make deliveries of ewes all over the country to match the quota for which subsidies were being claimed.

The trouble was that, since this practice was illegal, the movements of these sheep were not recorded. Which was why, when it turned out that many of the sheep bought "out of ring" in Cumbria were infected and MAFF began trying to trace where they had all gone to, the task was all but impossible. Many ewes had been secretly dropped around the countryside, often in quite small consignments. They had even sometimes been moved on, after being counted by the inspector, so they could be used to justify another illicit subsidy claim elsewhere ("bed and breakfasting").

Thanks to this racket large numbers of potentially infected sheep had dropped off the ministry radar, just when it was vital to track them down to see where the disease might have got to. Thus did the "black sheep" economy developed to exploit EU subsidy rules play its crucial part in ensuring that Britain's foot-and-mouth epidemic would become the worst ever recorded.

Stage Two: Out Of Control, 1-21 March



BY 1 MARCH the number of outbreaks had reached 32. Two days later, as the *Daily Telegraph* reported that the scale of the 1960s disaster was "unlikely to be repeated", it was up to 52, including Cumbria, Dumfries and Galloway, Lancashire, Herefordshire, Oxfordshire and the Isle of Wight.

By 6 March it had reached 81 and the EU extended its ban on all UK meat exports to 27 March. The next day it was up to 96, with four more counties affected; but MAFF's chief vet Jim Scudamore expected "the number of outbreaks to fall after the weekend". The following day it was up to 106 and Nick Brown admitted it was "impossible to say where it has gone".

By now, with 90,000 animals already killed or awaiting slaughter, television viewers were becoming familiar with the sight of huge pyres of burning carcasses sending oily, black clouds of smoke far across the countryside of Cumbria, Devon and other counties. But it was also becoming clear that the spread of the disease was far outrunning MAFF's resources to cope, let alone with the task of tracing all possible contacts with the markets from which it was suspected the infection had come.

Apart from killing all animals on farms found to be infected, MAFF's strategy was centred on declaring "protection zones" extending two miles round each new "infected place" and "surveillance zones" extending anything up to 10 miles or more beyond that. "Infected places" were served with an "A" notice, meaning no one could move on or off the premises at all. Within a "protection zone", which was eventually more precisely translated as being "three kilometres" round an infected farm, farms were served with a "D" notice. Here movement was still tightly controlled, and even in the wider "surveillance zone", eventually defined after much ministry confusion as extending "10 kilometres" (it had originally spoken of "10 miles") animal movements, even sometimes across only a few feet of road, were banned except under an incredibly bureaucratic and inefficient licensing system.

These restrictions in themselves not

only prevented tens of thousands of farmers and their families from earning a living, but created severe anguish at the height of the lambing season, as farmers were forced to stay out in remote fields, often through the night in pouring rain, vainly trying to save lambs which were being born into inches of mud because the ewes could not be moved into dry quarters.

By 11 March, with the number of outbreaks reaching 164, Nick Brown said he was "absolutely certain" that the disease was now "under control... we are eliminating it". But there was now growing frustration and bafflement at almost every aspect of the way his ministry was tackling the epidemic. Often it was taking days before animals suspected of infection were slaughtered, thanks to the need for samples to be confirmed by Pirbright. It might then take days more for the carcasses to be disposed of by burning. Meanwhile they lay bloated and putrefying in fields and farmyards. Even people living some miles downwind of pyres complained of the terrible smell, and of finding their gardens covered in shreds of half-burnt skin and flesh carried on the wind.

MAFF announced that, as an alternative to burning, it had arranged for carcasses to be transported to a rendering plant at Widnes in Lancashire, the first journeys to be made from Cumbria and Anglesey. But farmers along the route immediately began protesting that it was "outrageous" for infected carcasses to be carried through up to 100 miles of uninfected countryside, in trailers which it could be seen were not properly sealed. With the first cases of the disease having been reported in Ireland, the Irish natural resources minister Hugh Byrne said: "I believe myself that Britain has totally mishandled this"; and that it was "nothing short of a scandal". Britain was now "the leper of Europe".

By 13 March there was for the first time talk of Mr Blair having to postpone the general election he had planned for 3 May. The chief vet Jim Scudamore spoke in veiled terms of the disease having been spread by "sheep dealers", without

explaining why the system might have encouraged them to do such a thing. Michael Meacher, a junior government minister at the department of the environment with responsibility for the countryside, was appointed to head a “task force” to advise on giving help to rural industries which were being severely damaged by the closure of the countryside, not least the tourist trade.

As a further case of FMD was confirmed in France (in sheep imported from Hereford and Worcester), the European Commission put out a statement supporting the United Kingdom’s “slaughter-and-burn” policy as the most effective way of tackling the crisis. The commission, it was reported, did not believe the outbreak merited an “expensive vaccination programme”, which would cost the whole of the European Union its “disease-free status” and would effectively halt all exports of meat-based products to the outside world. This announcement came all but out of the blue, since the possibility of using vaccination had not so far been publicly discussed in Britain. But as early as 6 March, Dr B. Dixon, the European editor for the American Society for Microbiology, had claimed that to ignore vaccination in the case of an epidemic like Britain’s was to create “the perfect scenario for a disaster”.

By 15 March, when the number of outbreaks had risen to 240, MAFF announced a dramatic stepping up of its slaughter strategy. So bad was the situation in Cumbria that all animals within the “three kilometre” zones would now be “culled”, even though they might be showing no signs of infection and entirely healthy. This caused such uproar that the following day Nick Brown issued a clarification. The new “contiguous cull” policy, he explained, did not apply to cattle and pigs, only to sheep. But even this represented an extraordinary departure from any strategy used to tackle foot-and-mouth before. The reason for it was simply that MAFF had no idea where the disease might have spread to. It was therefore resorting to a mighty sledgehammer, in the hope of cracking all the possible nuts. And from now on, the “contiguous cull” was to become a central weapon in MAFF’s armoury, not just in Cumbria but wherever the disease was to be found.

MAFF also confirmed the same day that one of two farmers who seemed to have unwittingly been the “main source” of the spread of the disease had been Kevin Feakins, who owned a number of holdings in Herefordshire and Worcester. This explained why there was such a cluster of outbreaks in that area. The other farmer was Willy Cleave of Hatherleigh, Devon, many of whose holdings had similarly been infected, which also helped explain

the concentrated cluster of outbreaks in that county.

On 18 March, as the number of outbreaks reached 303, a rise of more than 60 in three days, former Tory agriculture minister Peter Walker accused the government of “unbelievable incompetence”. The Centre for Economics and Business Research estimated that the overall cost of FMD to Britain’s economy, including damage to tourism, could eventually be £9bn. On 19 March Jim Scudamore was given a slow handclap and heckled by a crowd of angry farmers and their families when he visited Cumbria.

On a visit to Brussels, Nick Brown was given backing by his fellow EU farm ministers; but Anthony Gibson, the director of the NFU in the south-west, said that in Devon, where there had now been 45 outbreaks, MAFF had “lost the battle”.

Devon trading standards officers said they were investigating 200 possible cases of “illegal sheep movements” in the county.

On 20 March, as the number of outbreaks reached 348, Ben Gill, the NFU president, spent an hour at 10 Downing Street, pleading with Mr Blair to speed up the slaughter and disposal programme. He pointed out the horrendous animal welfare problems which were now arising as millions of animals were prohibited from movement, having to live in desperately overcrowded conditions and running short of food. William Hague for the first time gave voice to serious criticism of the government, warning that the countryside was losing patience with its handling of the crisis. The army was for the first time called in, to play a limited logistic support role in helping clear the huge and ever-growing backlog of culled animals in Devon.

The following day, 21 March, the number of outbreaks rose to 411. The epidemic seemed out of control. If ever there was need for new thinking and a new strategy it was now. But with MAFF now in near total disarray, where on earth was it to come from?



MAFF’s chief vet Jim Scudamore was ‘out of his depth’ from day one

‘I believe myself that Britain has totally mishandled this’
– Irish minister
Hugh Byrne

What They Did Not Want Us To Know

The hidden ‘European Dimension’

ONE of the biggest puzzles in the early days of the crisis was why MAFF’s strategy for tackling the disease was so dramatically different from that used 30 years earlier to bring the 1967/8 epidemic under control.

Farmers were baffled as to why it seemed to be taking so long to slaughter and dispose of infected animals. Why did MAFF often have to wait days for samples to be confirmed as “positive” by Pirbright? Why was it not possible for local vets to order slaughter on diagnosis? Why did they have to apply for authorisation to a committee of MAFF vets in London, at Page Street, Westminster? Why, after slaughter, was it then taking so long to dispose of carcasses? Why were they often having to be taken away to be burned, rather than buried on the spot in quicklime, as had been common practice in 1967?

Similarly baffling was the thinking behind these “three kilometre protection zones” and “10 kilometre surveillance zones”. Where had all this new strategy come from? Certainly Nick Brown and his officials never bothered to explain it.

The mystery only deepened when a retired senior vet from Shropshire, Ken Tyrrell, who had been at the centre of the 1967/8 epidemic, suggested to his local MP, Owen Paterson, that he should look at the report of the official inquiry into that epidemic, published in 1969. This had been carried out under the chairmanship of a highly-respected figure in the farming world of that time, the Duke of Northumberland.

The Northumberland report, as Paterson was quick to pass on to his political and media contacts, was an eye-opener. It came to a series of firm conclusions as to how any future FMD epidemic should be tackled. The most important factor for curbing the spread of the disease, it urged, was speed. As soon as animals were diagnosed by a local vet as being infected, they should be slaughtered on the same day. They should then be buried the same day, on the same farm, in quicklime to kill off any remaining infectivity.

The contrast between all this and MAFF’s policy in 2001 could not have been more striking. It was as if every one of Northumberland’s central recommendations, derived from an exhaustive public inquiry and published only a year after the epidemic ended, had been not just ignored but stood on its head.

Only due to careful trawling through the website of the European Commission did the explanation for all these riddles emerge to public view. The reason MAFF’s strategy for tackling foot-and-mouth had so dramatically changed was that the British government was no longer in charge of policy on foot-and-mouth. The power to determine how the disease should be tackled had been handed over to Brussels back in the 1980s. It emerged that the



Agriculture minister Nick Brown and his breathtakingly incompetent MAFF officials were impotent to stop the disease spinning out of control

procedures any member state should adopt to respond to an outbreak of foot-and-mouth were now laid out in detail in a European Community directive, 85/511.

It was this directive which had turned the Northumberland report on its head by requiring, for instance, that there should be delays in slaughtering suspected animals until samples had been taken and approval received from the ministry. And it was this directive which had set up the "three kilometre protection zones" and "10 kilometre surveillance zones", which in the early days caused such confusion among MAFF officials, with their talk of "two miles" and "10 miles" because these protocols laid down by Brussels were so unfamiliar to them.

Since the EU now had ultimate control over the response to any outbreak of FMD within its territory, the British government was obliged to act within the terms of the directive in everything it did. It was bound to consult with the EU at every stage, in particular with its immensely powerful Standing Veterinary Committee (made up of the chief vets from each of the 15 member states), and to seek EU and SVC approval for any new policy decision. And in no respect was the EU's influence more relevant than in its policy on the use of vaccination, enshrined in a further directive, 90/423, to which we shall return in detail in a later section.

But these were not the only ways in which the EU had influenced the methods by which Britain was free to tackle the disease. Another highly significant reversal of earlier national policy derived from the EU's groundwater directive, 80/68, and the powers it gave to the Environment Agency to ban on-farm burials and the use of quicklime. This in itself overruled another of Northumberland's central recommendations, and became a major factor in creating those further delays between the bedrock, the slaughter of animals and the removal of their carcasses. It was true that nature had made on-farm burial difficult in some of the areas where in 2001 FMD was so prevalent. In Cumbria soil often provides only a thin cover for bedrock. In Devon an exceptionally wet winter had raised the water-table near the surface. But in general it was the new regulatory framework deriving from

Brussels which now switched disposal away from on-farm burial to other methods, such as burning the carcasses on pyres, rendering them down into powder or dumping them in mass-burial sites which had been approved as safe by officials of the Environment Agency.

The irony was that, in the name of protecting the environment, this only created new environmental problems. Not only was there the risk of spreading disease by leaving infected carcasses lying around in fields, sometimes for weeks on end. There were also the hazards which might arise from toxic smoke given off by pyres; those posed by the need to transport vast quantities of carcasses along public roads; and finally those arising from contamination of groundwater by leachate from mass-graves, several of which, such as the one at Epynt in south Wales, were sited in what turned out to be wholly unsuitable places on the advice of the Environment Agency itself.

There were other respects in which the story of the 2001 foot-and-mouth crisis was heavily influenced by this hidden "European dimension". Whether or not imported meat turned out to be the original source of the infection, there was little the UK could do about it since, under EU trade rules, the British government no longer had the power to prohibit imports of meat from any country where meat plants had been approved of by Brussels. And it turned out that these included no fewer than twenty-six countries where foot-and-mouth was still active, including Brazil, Uruguay, Argentina, Namibia and South Africa.

Nevertheless, under world trade rules laid down by the OIE, exports were only permitted from regions within those countries certified as FMD-free. The same rules applied within the EU itself. Although when FMD appeared in Britain in February, the European Commission immediately imposed a blanket ban on exports of meat and livestock from Britain to anywhere else in the world, it might eventually be possible to relax that ban in favour of any UK regions, such as Northern Ireland or

Scotland, which could be certified as disease-free ahead of the rest.

Yet another feature of the "European dimension" which politicians seemed anxious to keep under wraps was that Brussels now had total control over what compensation could legally be paid to all those who suffered financial loss as a result of the crisis. Farmers whose stock was slaughtered could be compensated for the market value of their animals under an EU scheme to which UK taxpayers contributed 80 percent. But the EU made it illegal to compensate farmers who had been prohibited from earning a living because of movement restrictions on their animals, even though they were suffering severe financial losses solely as a result of government action.

It would also be illegal under EU "state aid" rules to compensate a huge number of other businesses which were now suffering severe economic damage, not least due to the closure of the countryside and the drying up of tourist income (it was estimated that tourism related to the countryside brought in £12bn a year).

One anomaly in this was highlighted when the Isle of Man, which is not in the EU and therefore not subject to these rules, was able to pay £1m in compensation to its hotel industry for income lost when, as part of the rigorous efforts to keep FMD out of the island, the TT motorcycle races were cancelled. The British government would not have been permitted to do this.

But perhaps oddest of all, in light of the extraordinary degree to which Britain's policy on foot-and-mouth was now dominated by the shadowy presence of the EU, was the way this was hardly ever publicly mentioned. It would have been quite impossible to understand why the government responded to the 2001

epidemic in the way it did without grasping how far this was shaped by that key foot-and-mouth directive, 85/511, or appreciating the power exercised from behind the scenes by the EU's Standing Veterinary Committee.

Yet this was kept firmly away from general view, not just by ministers but even by opposition spokesmen like Mr Yeo. And one of the remaining mysteries



Despite the government's pitiful performance, Tory agriculture spokesman Tim Yeo never landed a blow

of the story is why no reference was ever made to a document which was furnished by the British government to the European Commission in 1993, as one of the requirements of the EU's overall control of policy on foot-and-mouth. This was a three hundred page contingency plan drawn up by MAFF and approved by the commission, laying out precisely what it intended to do in the event of any future outbreak of FMD in Britain.

If Mr Blair had allowed a proper public inquiry, this document should have been the first item of evidence it called for. But to this day his government has behaved as if it never existed.

Stage Three: The Computer Takes Over, 21-31 March

OUTWARDLY, on Wednesday 21 March MAFF and the government were still trying to bluff it out, pretending that everything was under control. When Mr Blair was asked by William Hague at prime minister's question time about his plans for the forthcoming elections, he stated that he was holding to the arranged date of 3 May for local elections.

This was generally understood to cover his plans for a general election date as well. Mr Blair emphasised that to send out a signal that Britain was "closed for business", as Easter and summer approached, would have very damaging consequences for the tourist industry.

But behind the scenes dramatic developments were afoot. Since late February something rather curious had been going on at Imperial College, London, where particularly close attention had been paid to the unfolding foot-and-mouth crisis by a team of epidemiologists led by Professor Roy Anderson.

The research team, including Dr Neil Ferguson and Dr Christl Donnelly, had only been working at Imperial since the previous November, after Prof Anderson had resigned from his post as Linacre professor of zoology at Oxford University under something of a cloud (see panel).

Prof Anderson's speciality had been to use computers to model the epidemiology of human diseases, such as Aids, malaria and TB, although because of its possible links with human disease he had developed an interest in BSE, for which he was made a member of SEAC, the government's scientific advisory committee on spongiform encephalopathies.

The previous October, however, the team had broken new ground. Dr Donnelly had produced a paper on previous foot-and-mouth epidemics, the team's first venture into the epidemiology of a disease which had no link to human illness.

She concluded, like the Northumberland report, that the best hope of bringing an FMD epidemic under control would be to slaughter animals on the day of diagnosis. No sooner were the first outbreaks reported in February 2001 than, off its own bat and without any special funding, the team switched major resources on to studying the new FMD epidemic.

Dr Ferguson fed data into his computer, arriving at the not entirely surprising conclusion that the epidemic looked in danger of running out of control. And on 6 March Anderson's old friend and Oxford colleague Sir John Krebs, chief executive of the government's Food Standards Agency, set up a meeting for the Anderson team to present its findings to a select invited audience, which pointedly did not include any representatives of MAFF.



Professor Roy Anderson, champion of the 'contiguous cull', whose computer model directed government policy from March 23

On 14 March, thanks to Krebs, MAFF was instructed to supply the Anderson team with all its latest data on delays between diagnosis and confirmation, and confirmation and slaughter (the crucial points on which the Northumberland recommendations had been so blatantly disregarded). This enabled the Imperial team to confirm that, due to the delays, and because each outbreak was now

generating more than one other, MAFF had demonstrably failed to bring the epidemic under control.

This provided the basis for Prof Anderson and his colleagues to come up with a new strategy. There must be a dramatic speeding up of the slaughter programme. The only way to stop the epidemic spreading was, firstly, that all infected animals must be killed in 24 hours; and secondly, a point on which they were particularly insistent, all animals on farms within the three-kilometre zone "contiguous" to an outbreak must be slaughtered within 48 hours. Although it was not until the following day that MAFF announced its plan for a "contiguous cull" in Cumbria, this principle was already central to the Anderson team's thinking.

On 21 March Krebs organised a further meeting for the Anderson team, this time with senior officials from MAFF, including the chief vet Jim Scudamore. Also present, very significantly, was the man who in January had been appointed the government's new chief scientist, Professor David King, a chemist from Cambridge.

King, who knew Anderson well, had been appointed as Mr Blair's chief scientific adviser on the recommendation of the former chief scientist, Sir Robert May, now president of the Royal Society. With Krebs, Anderson's former colleague

The man behind the computer

■ THE story behind Prof Anderson's move to Imperial College from Oxford began in January 1999, when he was suspended on full pay from his chair in zoology while the university authorities investigated complaints filed by his colleague Dr Sunetra Gupta.

He had accused her, publicly and falsely, of gaining her post at Oxford by sleeping with another professor in the zoology department. Two months later Anderson was reinstated, after agreeing to apologise in writing to those concerned. This failed to satisfy Dr Gupta, who continued to press for a public retraction.

A meeting attended by 26 readers, lecturers and professors in the zoology department passed a unanimous vote of no confidence in Prof Anderson. Meanwhile, an inquiry by the university into the research centre in the zoology department criticised his "autocratic" management style: conditions at the centre were "intolerable" and divisions ran "very deep".

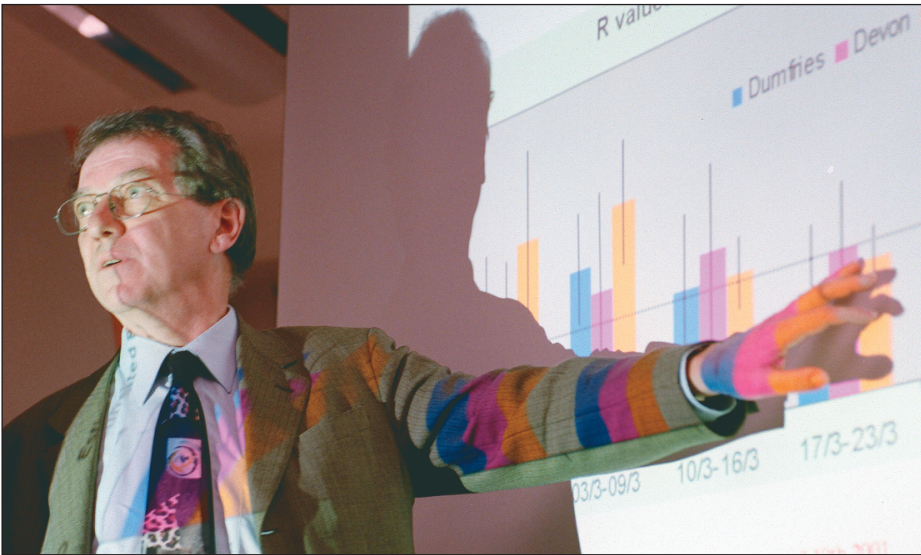
A separate financial audit then found that Anderson had not disclosed either to the university or the Wellcome Trust, which largely financed his research centre, that he was a director and shareholder of International Biomedical and Health Sciences Consortium, a private consultancy firm which had close financial links with the centre.

As director of the Wellcome Trust Centre

for the Epidemiology of Infectious Diseases, he had applied for more than £4m in research grants from Wellcome, while also being a trustee of the Wellcome Trust itself, which awarded the grants. "There was a degree of naivety on his part," a Wellcome spokesman said. "He should have been aware of the procedures to be followed. The research centre was also receiving commercial grants which were not declared, in breach of the trust's regulations."

On 9 May 2000 Anderson resigned his Oxford professorship and announced that he was taking up a chair at Imperial College. A month later he finally gave Dr Gupta the formal apology she wanted, admitting there had been "no foundation in truth whatsoever" in his comments. He paid her legal costs plus damages of £1,000, which she donated to Save the Children. As she told the *Daily Telegraph* in June: "I felt nobody should be allowed to get away with this and remain in a position where they are making judgements about people's lives... I felt there was no other choice, no other way to protect myself or other people."

Anderson also resigned his seat on the board of trustees for the Wellcome Trust. His departure was announced by Wellcome on 11 March 2000 in somewhat opaque terms, stating that "in view of recent events at the University of Oxford", his resignation "would be in the best interests of both the trust and himself".



Professor David King, Tony Blair's Chief Scientist, who seized control of the crisis from MAFF on March 21

at the Oxford zoology department, they were already a closely linked group. Anderson had co-written two books on epidemiology with May. All four were fellows of the Royal Society. And these men, King and Anderson in particular, were about to become crucial to the story of foot-and-mouth, because King, though his speciality was "surface chemistry", was about to use his authority as chief scientist to insist to Tony Blair that he should take a central role in coordinating direction of the crisis. As King himself later put it, in a Channel Four *Despatches* film: "I decided I should impose myself on the situation."

In front of King, Anderson's team explained to the MAFF representatives how their computer model was now predicting that, without a drastic switch in strategy, new outbreaks would, by early May, be reaching 400 a day. In other words, MAFF's strategy was failing hopelessly. The only hope of bringing the epidemic under control, the computer had shown, was massively to accelerate the slaughter rate, according to Anderson's "24 hours/48 hours" formula, and in particular to step up the contiguous cull.

King was now certain that Anderson's model was the key to a dramatic change of strategy. As the number of outbreaks soared past 400, MAFF had shown itself as wholly inadequate to the task. Anderson's strategy, backed by all the authority of a sophisticated computer programme, seemed to offer the only hope. That night, 21 March, with King's blessing, Anderson went on BBC's *Newsnight* to tell the nation that the disease was "out of control" and that his 24 hours/48 hours strategy was the answer.

This was a calculated slap in the face for MAFF and Nick Brown, who weakly

protested next day that "the phrase 'out of control' implies that we are being beaten, and that the disease is being allowed to let rip. I believe that is not the case." But, as King had engineered, the power had now moved decisively away from Brown and MAFF, into his own hands.

On the same day, 22 March, on his way to a meeting of EU heads of government in Stockholm Mr Blair made a flying visit to

Cumbria, where he ran into a hail of abuse from groups of farmers and their families. He was visibly shocked by the scale of the slaughter, which brought home to him as never before what was really going on out in the countryside. He was also for the first time warned of the far greater disaster which might be looming when millions of cattle, still under cover for the winter, came out in the spring to graze on pastures which might have been infected by sheep. He admitted that the government now had "massively to gear up to the scale of the challenge". And behind the scenes

'Anderson went on Newsnight to tell the nation the disease was "out of control"... This was a calculated slap in the face for MAFF and Nick Brown'

there was now one man above all, Prof King, who was advising him on what was to be done.

Blair let it be known that he was activating the government's crisis-management committee Cobra to launch a new offensive against the disease, under his personal leadership. Cobra would be advised by a "chief scientist's advisory group", chaired by King and on which Anderson was the leading member. From now on these two men would play the central role in directing the crisis. And on 23 March, as the number of outbreaks reached 430, King personally announced the government's new strategy, based on Anderson's "12 hours/24 hours" formula. The coup d'état over MAFF was complete.

Nothing now demonstrated more clearly the failure of MAFF's strategy than an absolute explosion in the reported numbers of new outbreaks. The total was now rising almost exponentially, at 30, 40 or 50 a day. In just 10 days between 21 March and the end of the month, the figure was to more than double, from 411 to 846.

There was now also a second component to the King/Anderson strategy, which equally served to highlight Mr Blair's determination to show that he was now acting personally to bring this disaster under control. This was greatly to step up the involvement of the army, to organise the hopelessly chaotic slaughter and disposal programme on military lines. When the contiguous cull policy got fully under way, as King and Anderson had advised, this would be crucial.

On Blair's visit to Cumbria he had instructed the telegenic Brigadier Alex Birtwistle that he was now to take full charge of operations in the area. And one of Birtwistle's first moves was to order the clearing of a massive new burial pit for half a million carcasses on a disused airfield at Great Orton. The first piles of dirty dead sheep were unceremoniously dumped into the pit on 26 March. From now on, it was hoped, there would be fewer of the horrendous funeral pyres which had given such an unhappy image of Britain to the world.



JUST FANCY THAT!

■ A CURIOUS riddle of the story is why Dr Christl Donnelly of the Anderson team should the previous October, apparently out of the blue, have produced a paper on previous epidemics of a disease which had not seriously affected Britain for more than 30 years.

Since this was concerned with a virus which only affected animals, it was way outside the team's normal epidemiological remit. But when FMD appeared four months later, it certainly put the Imperial College team in an advantageous position in what quickly became a major national crisis. Was the timing of Donnelly's paper just a happy accident? Or could the word have somehow come through to the team that a foot-and-mouth crisis might be on the way?

One of the bodies best placed to pick up early warning signs was the Meat Hygiene Service, responsible for enforcing hygiene rules in abattoirs, which routinely takes random samples from animals passing through slaughterhouses. If tests had picked up the presence of FMD antibodies somewhere in the national sheep flock, the MHS would have passed this on to its parent body, the Food Standards Agency; and certainly something as significant as this would have reached its director, Sir John Krebs.

It would then have been quite natural for Krebs to ask his old friend Roy Anderson what he knew about foot-and-mouth, which might in turn have prompted the idea of a paper on previous epidemics, to provide useful background if another one was to materialise.

One thing which particularly alarmed Blair, however, was to be told that, under rules related to BSE, it would only be legal to bury sheep in these vast pits. If the epidemic spread en masse to cattle when they came out to summer pasture, the media would once again be filled with bonfires of blazing carcasses. Those cattle were certainly threatening to become a major political problem.

On the day the mass-burials began at Great Orton the agriculture minister Nick Brown flew up to Cumbria to show himself at the centre of events, and was again angrily heckled. But in terms of real power he had now in effect been sidelined. The man who now saw himself at centre stage, with his new allies King and Anderson behind him, was the prime minister. And on 23 March, at the EU council meeting in Stockholm, he had already been caught out revealing what was now uppermost in his mind.

The European Commission's president Romano Prodi asked him how long it was before he needed to make a final decision on whether to postpone his 3 May election date. "Ten days," he replied in an unguarded moment, before realising that a television camera was peering over his shoulder. In fact those next 10 days were to confront Mr Blair with what was to turn out to be the most fateful decision of the whole story.

What They Did Not Want Us To Know

Why was Prof Anderson's computer model so fatally flawed?

WHAT was particularly odd about the two scientists who had now in effect been put in charge of the crisis was that neither had any background in veterinary science.

Prof King, the chief scientist and now Mr Blair's key adviser, specialised in "the chemistry of surfaces". Prof Anderson's expertise was using computers to predict mainly human epidemiology. Yet it was now on the basis of his computer model that the government had made a major shift in policy, designed to crush the disease literally by overkill. His stepping up of the controversial "contiguous cull" strategy in particular was designed to stop the disease in its tracks by wiping out huge numbers of animals as quickly as possible, even though many might never have been exposed to the disease at all.

No one, it emerged, was more critical of Anderson's model than the government's own senior foot-and-mouth experts at the Animal Health Institute's laboratory at Pirbright, a "world reference centre" for the disease.

Dr Paul Kitching, the institute's deputy-director and head of FMD research, told Nick Brown on 29 March that in his view the model was flawed because it was based on inadequate or misleading data. This was not least because it did not take account of the differences between the way various species reacted to the disease; and because it exaggerated the effect of windborne spread in this particular strain of FMD, as he had confirmed from direct experience in the Far East.

His researches convinced him that the "contiguous cull" was scientifically unjustified, even "a total suspension of common sense". He repeated his criticisms

to Prof King's scientific advisory committee in early April — where he was later described by Prof Anderson as having been a "lone voice" — although he was subsequently supported in a paper by Dr Alex Donaldson, Pirbright's director, and three of his staff.

But the real problem with the computer model, other experts suggested, went even wider and could unkindly be summed up in that familiar computer axiom "garbage in, garbage out". The data Prof Anderson and his team were feeding into their programme might be misleading for at least four further reasons.

Because the ministry figures were based on an unreliable assessment of the starting-point of the epidemic — which had almost certainly begun months before mid-February — the epidemic curve stretched back much further and was therefore flatter than the ministry allowed for. The curve was also seriously distorted by the inability of ministry tests to distinguish between "old" cases of infection and "new". Yet it was on this profile that Anderson's predictions of its future course were based.

To a significant extent the reporting of new cases depended on the veterinary resources available to carry out diagnosis and tracing of contacts. Initially the ministry had only 217 vets available, resulting in an under-reporting of the true course of the disease. By the end of March the number had risen to 1,400, which led to a much higher degree of reporting. Thus the basis on which the data was compiled was seriously inconsistent.

The computer data were further to be skewed by the contiguous cull itself when, in late April, the ministry decided that most animals killed under the cull should no longer be tested (as would be confirmed by Jim Scudamore in evidence to the Commons agriculture committee). The cull was thus destroying the evidence crucial to understanding the true incidence of the disease. It was impossible to know how many of these animals might have been infected, either currently or during earlier months.

Has the A-team defeated the virus?

The fight against foot and mouth has been spearheaded by a task force of epidemiologists — their weapon is clever software. Roger Highfield reports

And the blasted piles of rotting carcasses, piles of individual farmers and claims of ministerial incompetence from a remarkable scientific story, under various conditions, to side that epidemicologists have modelled a major epidemic; as it unfolds, they intervened to change its course.

The foot and mouth crisis has seen other scientific, Drug Office of Science and Technology, or also marks ten remarkable deaths, one for the Chief Scientific Adviser, Prof David King, who took up his post at the months ago, and one for a team of Imperial College led by Prof Ian Anderson.

Today Prof King is expected to announce whether the epidemic is truly under control. The signs are encouraging. The signs are encouraging, despite outbreaks in new areas.

Just tomorrow, after years of success in eradicating the disease from Great Britain, the UK's first epidemic is being contained by a team of 70 scientists from across the country, led by Prof Anderson's team at 70 scientists from across the country.

being fed daily by the Imperial College team, which is also supported by the Imperial College team, which is also supported by the Imperial College team, which is also supported by the Imperial College team.

Four experts were flown in from New Zealand, where the disease is still endemic, to help develop the model. The task, they were told, was to help develop the model. The task, they were told, was to help develop the model. The task, they were told, was to help develop the model.

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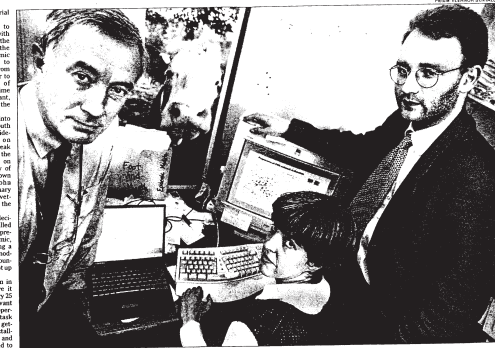
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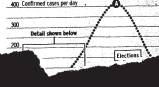
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How the Daily Telegraph was 'used' by Professor Anderson (left) and his colleagues Dr Christl Donnelly (centre) and Dr Neil Ferguson (right) to promote their contiguous cull policy



Foot and mouth: scientific predictions



The figures were also skewed by lack of tracing or testing away from recognised infection zones, either of farm stock or of wild animals which were potential carriers, such as deer. It was thus difficult to know where else the disease might have spread or might be spreading.

Any of these factors in isolation might have influenced the accuracy of computer predictions as to the course of the epidemic. In combination they could have introduced such distortions as to make the computer model almost worthless. Yet from now on it was this model which more than anything else was to guide the government in its response to the epidemic.

Was the 'contiguous cull' actually legal?

A quite separate question was whether the government actually had the power in law to authorise the mass-slaughter of healthy animals which, since 15 March, had progressively become such a central feature of its strategy.

EU law, as expressed in directive 85/511, permitted compulsory culling of all stock on a farm which had tested positive for FMD, but not the slaughter of animals on contiguous holdings. However, the law claimed by MAFF as its authorisation was not that directive but the UK's own Animal Health Act 1981. This not only required the slaughter of all stock on a holding diagnosed as infected. It widened this out to include any animals which a veterinary official might, on his discretion, have reasonable grounds for supposing had been exposed to infection.

But when this point came to be tested in the high court in June, in the case of Grunty the pig (see Stage Eight), Mr Justice Harrison ruled that it could not be interpreted as a blanket permission to kill any animals just because of some general principle. Each case had to be assessed separately, on its individual merits. This was certainly not the principle behind the contiguous cull policy launched in March, which relied on precisely that type of "blanket slaughter" allowing for no discretion which Mr Justice Harrison was eventually to rule was not authorised.

On this basis it seems clear that the contiguous cull programme, under which millions of healthy animals were to die, was in breach both of EU and UK law. This may explain why, over coming months, in more than 100 cases where its officials were challenged, MAFF was to back down. But the vast majority of farmers clearly found it hard to conceive that the government might itself be acting in flagrant breach of the law and accepted the legality of its actions without challenge.

They were further induced to acquiesce in the scheme by the fact that they were in most cases being offered compensation significantly higher than the market value of their animals; and by the fact that they were encouraged to do so by the NFU. When farmers rang the NFU to ask about their right to challenge the contiguous cull, they were urged to ring a number which turned out to be a MAFF helpline.

Stage Four: The Great Vaccination Battle, 21 March to 23 April

WE NOW come to what was to be the most crucial episode of the whole story. It involved a debate and a power struggle which were to last for several weeks. Had these gone the way many people hoped, the outcome of the story might have been dramatically different. But so shrouded was this battle in confusion and disinformation that only now is it possible for the first time to reconstruct what really happened.

By 22 March it seemed the prime minister had firmly opted for what was now to be the government's new strategy: to stamp out the disease by means of Prof Anderson's accelerated mass-slaughter programme. But almost immediately the increasingly fraught Mr Blair came under pressure to go for a totally different approach.

A week earlier, when the number of outbreaks was still only 183, the European Commission had issued a statement firmly dismissing any suggestion that an answer to the crisis in Britain might be to make widespread use of vaccination. This, the commission warned, could cost the whole of the European Union its international trading status as a "disease-free area", effectively denying EU meat exporters access to valuable overseas markets, including North America.

For more than 10 years the European community had particularly prized its status as an area wholly free of foot-and-mouth disease; and although this had only been achieved through nearly 30 years of routine vaccination against FMD by most member states, Brussels had taken a historic decision in 1990, ironically on a British initiative, to outlaw the use of vaccination except in dire emergency. This was because, under OIE rules, it could thus be accorded the international highest trading status, as a disease-free region which did not use vaccination (see *Commentary*).

Nevertheless the directive enshrining the new anti-vaccination policy, 90/423, did allow for the possibility that, in emergency circumstances, the use of vaccination might be permitted. By mid-March, when Britain's epidemic was so out of hand it threatened to spread the disease to the rest of the EU, a growing number of international experts began to suggest that this was precisely the type of emergency in which vaccination should be used.

These included Prof Fred Brown, an Englishman working for the US Institute of Animal Health at Plumb Island, New

York, a Yale professor and former deputy-head of the Pirbright institute, generally acknowledged to be the leading authority on FMD in the world; and Dr Simon Barteling, a leading Dutch vet who had taken charge of epidemics in 23 countries and had been the man employed by the commission in 1990 to frame its new policy laid down in directive 90/423.

These distinguished veterinary scientists and FMD specialists had no doubt that modern vaccines, used in many parts of the world, would be effective in Britain. As recently as 1996, when the same "Pan Asian O" strain had caused a serious epidemic in Albania and Macedonia, the EU itself had been quick to set up an emergency vaccination programme to prevent the spread of the disease across the EU's own frontiers. The epidemic had been brought skidding to a halt in weeks.

By the closing days of March, as the epidemic curve soared, determined efforts had been made behind the scenes to bring the arguments for vaccination to Mr Blair's attention. The key moment came when Prince Charles sent him a paper by Dr

'The proper use of modern vaccines "would have been enough to stop the entire British epidemic in its tracks within a few weeks"'

Keith Sumption, a veterinary expert from Edinburgh University, condemning the mass-slaughter policy as ineffective and arguing strongly for emergency vaccination. And on Tuesday 27 March, using Sumption's paper as his main technical evidence,

multi-millionaire publisher Peter Kindersley, who ran an organic farm in Berkshire, went to the London high court to argue the case for vaccination and against the legality of Anderson's mass-cull.

The most vocal opposition to any such switch of policy, it seemed, would come from the leadership of Britain's farming community, the veterinary establishment and MAFF itself. Britain had never historically practised vaccination for FMD, even during the decades when it was routinely used across the continent. In 1972, a secret report compiled by Pirbright after the 1967/8 epidemic had confirmed that this should remain national policy. And right from the start of the present crisis, scorn had been poured on vaccination by senior vets, such as Keith Baker, the past president of the British Veterinary Association, who claimed it offered "no guarantee" of protection, and that "stamping out the disease by slaughtering infected animals wins every time".

For the NFU the most important factor

was that vaccination would cost Britain its disease-free status and an export trade in meat, meat products and livestock which MAFF said was worth £570m a year, even though this was already far outweighed by the financial damage inflicted by the 2001 epidemic on the UK economy as a whole.

But Mr Blair was by now seriously wondering whether vaccination might be the answer to what had become the most urgent of all his political problems. It had already been made clear, both publicly and privately at a meeting of EU farm ministers, that there was no way the European Commission would permit a full-scale vaccination programme. But what was nagging at the prime minister more than anything was the thought of a massive upsurge in the epidemic when those cattle in Cumbria and elsewhere came out to grass.

"A few days ago," he admitted to the House of Commons on Wednesday 27 March, vaccination was "generally regarded as anathema to very large parts of the farming community." But "things which may have seemed utterly unpalatable a short time ago have to be on the agenda". That same day, on Blair's instructions, MAFF applied to Brussels for urgent permission to carry out a limited vaccination programme to protect cattle in the two worst-hit areas: 100,000 in Cumbria and 80,000 in Devon.

This was not any wholesale conversion to vaccination as a way of ending the epidemic, which the commission had already ruled out. It was a carefully calculated political expedient. What Mr Blair wanted to avoid above anything else was the possibility that, in the run-up to the election, still planned for 3 May, the nation's television screens might again be filled with those blazing funeral pyres, as hundreds of thousands of dairy cows went up in smoke.

When Nick Brown announced to the Commons that his officials were applying to Brussels for this permission to vaccinate, he was scarcely able to conceal his distaste for a move which seemed to contradict his ministry's oft-stated policy on the issue. He could not resist adding that any resort to vaccination would delay a return to the exporting of cattle and meat, and that any cattle vaccinated would probably have to be slaughtered later anyway.

What made this last detail particularly odd was that the MAFF application, approved by the EU's Standing Veterinary Committee on 30 March, expressly prohibited the slaughter of the vaccinated cattle. What the UK was applying for, under directive 90/423, was "protective", not "suppressive" vaccination. Nevertheless, also built into the permission MAFF had asked for was an interesting little "poison pill" which might prove very helpful in stoking up any opposition to vaccination from farmers.

The small print of the commission's

permission set restrictions on the sale of meat or milk from any animals vaccinated which would impose severe financial loss on the farmers who owned them. In fact, under council decision 90/424, the EU specifically allowed for farmers to be compensated for such losses. But MAFF carefully omitted to explain this to the farmers. Indeed it gave them to understand that there was no way round these financial disincentives, and this was later to be used by the NFU as powerful evidence in its campaign to persuade farmers against any use of vaccination.

The NFU's immediate response to the vaccination plan was one of horror. Its president Ben Gill later recalled: "I was actually speechless. What's happened? Only a few days ago this wasn't an option." But the really significant opposition to this move towards vaccination was not that from the NFU and MAFF. It was that coming from the man who now occupied the most influential position of all in the government's fight against the disease, Prof Anderson.

This initiative seemed to pose a direct challenge to the strategy with which he was now so firmly identified, the accelerated mass-slaughter policy, which even Prof King was now predicting could end up killing half of all Britain's 60 million farm animals. The Anderson team had always been fervently opposed to vaccination against FMD (which was odd, considering how useful it had shown vaccination to be in its epidemiological studies of human diseases). Privately they had already made common cause with Ben Gill and the NFU, as useful allies in fronting any public battle against it. And from now on, behind the scenes, the

resistance to the new policy favoured by Mr Blair was to be relentless.

On Thursday 29 March, the day Brussels gave permission to vaccinate by Council Decision 2001/208, Gill and other "farmers' leaders", briefed by Anderson, sought a meeting with Blair to launch their counter-attack. For 90 minutes they pressed their case against vaccination, claiming there were "positive signs" that Anderson's cull policy was already working. Faced with such an onslaught, the prime minister put off a decision on whether to implement vaccination in Cumbria and Devon until after the weekend. This would give four more days to assess whether the Anderson strategy was working. In the high court Kindersley was given leave to appeal against the slaughter policy.

The following day, 30 March, 64 more outbreaks were confirmed, the highest daily total so far. On Monday 2 April, at Mr Blair's request, four leading pro-vaccination campaigners came to 10 Downing Street to discuss the Sumption paper: Patrick Holden of the Soil Association; Fiona Reynolds, director of the National Trust; Gareth Davies, a former EU veterinary adviser; and Lawrence Woodward of the Elm Farm research centre, a close associate of Peter Kindersley. They found Blair "very supportive" (so much so that Kindersley now decided there was no need to continue his case). And although he had not yet decided on giving the go-ahead for Cumbria and Devon, he later that day signalled the chief reason he was now so preoccupied by foot-and-mouth, when he emerged from Number 10 to announce that he was delaying the general election until 7 June.



World ranking foot-and-mouth experts Professor Fred Brown (left) and Dr Simon Barteling (right) speak out for vaccination rather than mass slaughter at a London press conference organised on 24 April by Bill Eykyns (centre) and his wife Alicia

That evening Ben Gill and Nick Brown met for dinner at a Millbank restaurant. They took advantage of the delay in implementing the limited vaccination programme which had now been given EU permission, to hatch a plan which might delay it further. If cattle farmers could be persuaded to keep their animals indoors longer than usual (and in this the cold, wet spring was already giving assistance) this might take off the pressure to vaccinate for some weeks longer.

Meanwhile, faced with what he perceived as a threat to his mass-cull strategy, Prof Anderson went into overdrive. Using his authority as the leading member of King's chief scientist's advisory group, he and his team rushed

together a secret report to be sent to the prime minister, pouring scorn on vaccination and claiming that, even if all 60 million farm animals in the UK were vaccinated, this would merely have the effect of masking the disease, leaving it to strike again within weeks or months.

On Wednesday 4 April the outbreak total passed the 1,000 mark reaching 1,020. The anti-vaccination campaign now recruited representatives of the food processing industry, headed by Peter Blackburn, chief executive of Nestlé, which derived 75 percent of its powdered baby milk from cows around Cumbria.

On 5 April the chief scientist's group used Anderson's paper to brief the NFU against any use of vaccination to control the current epidemic. By Monday 9 April, when outbreaks reached 1,137, Nick Brown claimed that, thanks to the Anderson strategy, the rate of new outbreaks was now diminishing and warned, along the lines suggested in the Anderson paper, that any use of vaccination might mean the epidemic lasted longer. And on 11 April Anderson showed his skilful exploitation of the media when the *Daily Telegraph* published a full page feature by its science editor Roger Highfield, headed "Has The A-Team Defeated The Virus?"

This was an adulatory profile of Anderson's team, complete with dismissive comments on vaccination and graphs from the famous computer showing how, if the accelerated slaughter-and-cull strategy had not been implemented, the epidemic would have reached 400 outbreaks a day by early May. But the graph also showed how, thanks to the cull strategy, outbreaks were now expected to drop to zero in early June, helpfully marked by the *Telegraph* as coinciding with Mr Blair's chosen election date.

Mr Blair was still convinced vaccination might be a vital political weapon. On 12 April, at a secret meeting at Chequers and with persuasive help from

Chris Haskins, chairman of Northern Foods, he won unanimous agreement from representatives of major food companies that vaccination was the way forward. As a deliberate stalling tactic, the NFU put a long list of 52 technical and legal questions to MAFF (to many of which they already knew the answers).

But the following day, 13 April, Blair was briefed with the shocking news that the number of slaughtered animals awaiting disposal was now nearing a million, and that MAFF was still falling way short of Anderson's crucial 48-hour target for culling contiguous farms. It seemed there simply were not the resources to make the Anderson strategy work. Mr Blair instructed Nick Brown to persuade

the farmers that vaccination was now the only alternative, in advance of announcing the programme for Cumbria and Devon four days later, on Tuesday 17 April.

Mr Brown set about his task without conviction. Vaccination, he limply told BBC1's *Countryfile*, "would only work as a strategy if everyone involved was committed to making it work". Anderson's ally Prof King was despatched to Cumbria to talk the farmers round, to predictably little effect. The NFU's anti-vaccination campaign was now in full swing, centred on the claim that vaccination would delay any restoration of export status by "at least 12 to 18 months", and echoing Anderson's point that it would only prolong the epidemic rather than eradicate it.

On 19 April Anderson again made powerful use of the *Daily Telegraph* when a "leaked" copy of his paper led the front page, under the headline "Warning On Vaccination Swept Aside". A "confidential report from the government's scientific advisers", wrote agriculture editor David Brown, "warned Tony Blair two weeks ago that foot-and-mouth vaccination could do more harm than good". It could "prolong the epidemic" and could "threaten food exports worth £30m a week".

Seeing the effect of all this on the bemused farmers whose support was vital to the success of any vaccination programme (and increasing numbers of whom had been swinging round in support of vaccination), pro-vaccination groups led by the Soil Association, the National Trust, Friends of the Earth, the RSPB and the Rare Breeds Survival Trust counter-attacked by claiming that farmers were being wildly misled by all the

'If Mr Blair had been more fortunate in his advisers... he might have been able to bring the epidemic to a halt by May'

propaganda from farming organisations.

They had not yet discerned just how limited and political were Blair's reasons for wanting vaccination, nor the hidden role played in the campaign against it by Prof Anderson. But they still confidently expected vaccination to be given the green light when the Commons agriculture committee assembled in the week beginning 23 April, for sessions on foot-and-mouth with Nick Brown, his chief vet Jim Scudamore and Prof King.

Firstly Mr Brown announced that, in light of continuing resistance from farmers and the food industry, coupled with growing evidence that the slaughter policy was containing the disease, "the case for vaccination recedes as the daily number of cases declines". Then Prof King handed out to the incredulous MPs a photocopied graph. This showed that the precise date on which Prof Anderson's computer was now predicting the epidemic curve would finally hit zero was 7 June: the very day Mr Blair had chosen for his election. It was a brilliant double ambush. Vaccination had been snatched off the agenda in the nick of time. Prof Anderson and his allies had won the day. And there was nothing Mr Blair could say or do about it, except privately to resolve that, when the election was over, his agriculture minister would be demoted as humiliatingly as possible.



Ben Gill, president of the NFU, consistently let down small livestock farmers, not least by leading the disinformation campaign against vaccination

What They Did Not Want Us To Know

Why was vaccination never really on the agenda?

THE most remarkable feature of the great vaccination battle was how many of the scientific and political facts relevant to proper understanding of the issue remained obscured from public view. There were really two quite different battles going on at the same time. One was the general debate as to whether a full-scale vaccination programme was the quickest, cheapest and most effective way to stop the epidemic. The other was the much more limited programme Mr Blair was in the end pressing for, to serve what was essentially just a political purpose.

As to the fundamental debate, the basic scientific facts should have been indisputable. But the way these became fogged in confusion and controversy made this a classic case-study of how distorted science can become when it moves into the political arena.

In essence the case being made by the FMD specialists like Prof Fred Brown, Dr Simon Barteling and other vets of world stature, was very simple. It was backed by years of first-hand experience and the knowledge of how rapidly the science of vaccination had been advancing even in the preceding few years.

What they tried to explain, as Brown and Barteling set out at a press conference in London on 24 April, was that the proper use of modern, oil-adjuvanted [ie diluted], single-dose, high-payload “killed” vaccines would have been enough to stop the entire British epidemic in its tracks within a few weeks. They would have begun with “ring-vaccination” round every infected area and worked inward until the disease was eradicated. Seriously infected animals might still have had to be culled. But within 48 hours of vaccination animals would have ceased to be capable of passing on infection.

There was no scientific reason vaccinated animals should be slaughtered, or why their meat and milk should not enter the human food chain (every supermarket in the country offers meat from animals which have been vaccinated for other purposes). Modern vaccines are effective against a full range of FMD strains. And by the end of March more than enough vaccine could have been made available to carry out a vaccination programme sufficient to bring the British epidemic quickly to an end.

There was no stronger evidence in support of this case than the track-record of vaccination where it had been used elsewhere in the world; not least in the dramatic success of the EU’s own emergency vaccination programme in Albania and Macedonia in 1996, which brought a serious epidemic of “Pan Asian O” to an end within weeks.

Vaccination has routinely been used to suppress FMD in many countries, as in Uruguay, which has 10 million cattle freed

from FMD by vaccination, and which has been so effective that the local vets do not even need to vaccinate the country’s 40 million sheep. This alone confirmed that vaccinated animals do not remain infectious carriers of the disease.

On the continent of Europe in 1952, as Dr Barteling explained to the London press conference in April, there were 100,000 cases of FMD. Over the next three decades vaccination was then routinely applied in countries such as Holland, Germany and France, to such effect that by 1989 there was not a single case. During that time, in his own country of Holland, 200 million animals had been vaccinated and across the continent as a whole the total number of animals vaccinated ran into billions. Yet there had never been any objection to the meat or milk from those animals being offered for human consumption.

In fact the arguments raised against vaccination seemed to derive far more from morbid human psychology than from any genuine understanding of science. The argument for vaccinating animals against foot-and-mouth was essentially no different from that in favour of vaccinating human beings against tuberculosis, polio or smallpox. Quite simply, it is by far the most effective, humane and cost-efficient way of dealing with the problem.

Such was the scientific case for vaccination, which on purely scientific grounds was unanswerable. The trouble was that practical science has to operate within the framework of politics (and morbid psychology). And in that context the case put forward for the use of vaccination in Britain in 2001 had to surmount three separate, very large hurdles.

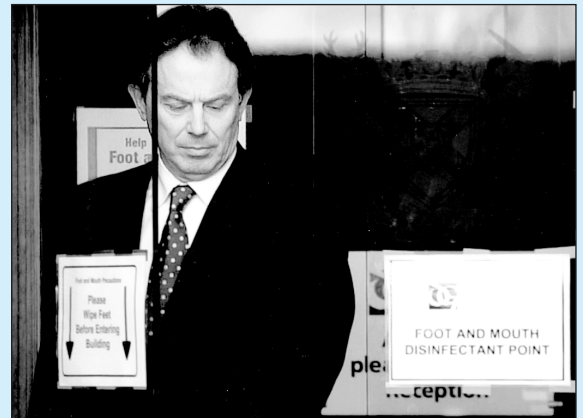
The first was the peculiarly “British problem”. Historically, Britain had never used vaccination against FMD. Since the late 19th century it had relied solely on the slaughter of infected animals to such effect that, between 1968 and 2001, there had only been one very minor outbreak. This meant that all the training of British vets, including those in MAFF, inclined them to a mindset suspicious of vaccination against FMD (even though they were quite happy to use it in other contexts).

This reached right up to the Animal Health Institute at Pirbright, even though this was a “world reference centre” for FMD and its staff were quite used to vaccinating when called in to advise on epidemics elsewhere in the world. Dr Paul Kitching had played a leading role in the elimination of the Balkans epidemic in 1996. This national prejudice against vaccination reinforced the “economic” argument favoured by many British livestock producers, particularly those involved in the export of breeding stock, who were particularly conscious of the barriers to trade put up against countries which do vaccinate against FMD.

Secondly there was the “EU problem”. In 1990 had come that fateful decision, on a British initiative, to adopt the British

prejudice against vaccination, except in emergency circumstances.

Dr Barteling had played a key role in coordinating the directive, 90/423, which put this into Community law. And the justification for this had been to establish the EC’s status as a “disease-and-vaccination-free” region, permitted to export anywhere in the world. This had become such an article of faith that, as the commission repeatedly made clear, both publicly and privately, there was no way vaccination could be permitted in the epidemic of 2001, except on a limited



basis, as was done by Holland with complete success.

When the controversy over vaccination got under way in Britain in 2001, few issues became more fogged by misunderstanding than the precise nature of those international and EU trade rules which would permit Britain to recover the “disease-free export status” which she had lost as soon as the epidemic began. Under the worldwide rules set by the OIE, a country can recover its disease-free status either three months after the end of the very last recorded outbreak, or 12 months after it has completed a vaccination programme.

In this instance, if Britain had completed a vaccination programme in April 2001, and there had been no further recorded outbreaks, she could have recovered full trading status in April 2002. By rejecting vaccination that status could only now be recovered three months after the last outbreak. In order to achieve that target sooner than could have been achieved by vaccination, the last outbreak must end not later than January 2002.

This issue itself became further fogged by the imprecision with which the EU itself interpreted these rules. Initially in 2001 the commission categorically claimed (both in its statement of 13 March and on its website) that any use of vaccination in Britain would not just imperil Britain’s own vaccination-free status but that of all the other countries in the EU as well.

Brussels is keen to promote the idea that, for international trading purposes, the EU must be regarded as one single country. But when several EU countries, including Britain, Holland and Germany, subsequently applied for permission to vaccinate, Brussels began to panic about the implications. This became clear at a meeting of farm ministers in Sweden in April, in a statement by the EU’s food safety commissioner David Byrne (it might

have seemed odd that he was in charge of FMD, which has nothing to do with human food safety, but animal disease had been made a responsibility of his directorate the previous year because of BSE).

Byrne conceded that recent advances in vaccine science might make it sensible for the EU to reconsider its anti-vaccination policy. But certainly this could not happen until the present crisis was over.

The third major hurdle the pro-vaccination lobby had to face in 2001 was that which came from the arguments put forward by Prof Anderson. It was he more than anyone who reinforced the already existing prejudice against vaccination in the NFU leadership and MAFF, with his claims that vaccination was not effective; that it would not prevent animals remaining infectious; and that it would merely mask the disease and therefore heighten the risk of prolonging the epidemic.

So riddled with disinformation did the debate over vaccination become that specialists in the veterinary science of FMD such as Prof Brown and Dr Barteling could only look on in disbelief. It was particularly telling that, even when these world authorities came to London in April, prepared to offer advice, they were sidelined and ignored by the British political establishment.

They could see that almost every argument being put forward against vaccination was without any basis in scientific fact. Modern vaccination was proven to be effective. It did not increase the risk of infection. It would not have heightened the risk of prolonging the epidemic. And in Britain's case, so long was the disease dragging out that it would almost certainly have allowed recovery of export status sooner than reliance on mass-slaughter. But in the fog of the time, the authority behind these arguments became totally lost. If Mr Blair had been more fortunate in his advisers, if he been able to show true understanding of the problem and strong political leadership, he might well have been able to bring the epidemic to a halt by May. As it was he chose vacillation rather than vaccination, and in the end he was outplayed at what became simply a political game. He lost, and he now had to live with the consequences.

Carry on exporting: the Dutch example

■ WHEN in April Holland used vaccination to tackle its 25 outbreaks of FMD, vaccinating 145,000 animals, there was no longer any suggestion that this would imperil the EU's trading status as a whole.

In order to recover its full disease-free exporting status as soon as possible (since meat exports play such a key role in the Dutch economy), Holland agreed to slaughter all the vaccinated animals, since under OIE rules this would bring a return of full export status within three months, rather than the 12 months necessary if the vaccinated animals had been allowed to live.

So successful was the Dutch vaccination programme at stamping out the disease (the last case occurred five days after vaccination ended) that Holland recovered its export status in August.

Stage Five: MAFF Versus the Countryside, 1-27 April



WHEN Mr Blair had flown up to Cumbria on 22 March for the first time it brought home to him just what reaction his government's actions were beginning to arouse in the countryside. The catcalls and angry shouts began as he walked into a closed meeting with "farmers' leaders" in a pub in Carlisle from which ordinary farmers were excluded.

"I understand all the criticisms," he said. "I simply say that there was a fear a week ago that we were over-reacting with the slaughter policy, but now I would think people would say 'we want that policy carried out and carried out quickly'."

Later, as he ran from his Jaguar into another meeting, visibly flinching from the abuse of the crowd, one farmer cried out: "You're a coward. You don't give a s*** about the north." The protesters, including despairing farmers, redundant climbing instructors from the Lake District, destitute hoteliers and two tearful seven year olds whose pet lamb had been slaughtered by MAFF that afternoon, shouted: "The only good Blair is a dead one."

Richard Batey, a dairy farmer whose cousin had just lost 3,000 cattle, said: "This is not a disease we have now. It's a plague. Cumbria is going to be wiped out. Blair doesn't care tuppence about the north of England. He should have been here weeks ago. He didn't even look at us. He hasn't even got the guts to tell us it's out of control. Get yourself out on to the farms, Mr Blair, it's carnage."

Mr Blair then escaped from the blazing pyres and desperate farmers of Cumbria to the rather more congenial company of his fellow EU leaders in Stockholm. But he left behind him, with Prof King, the decision to go-ahead with Anderson's stepped-up mass-slaughter programme. However bad the carnage might have been until now, it was about to get much worse.

Over the next month, as the number of outbreaks were to rise by more than 1,000, thousands more farms would see their livestock destroyed. The epidemic was now clearly centred on a huge swathe of western Britain, from Dumfries and Galloway in south-west Scotland through Cumbria down to the Welsh borders and west Midlands; and from there through the Forest of Dean and south Wales down to Devon. As the killing policy was stepped up across this vast area, now with the aid of more than 2,000 soldiers, 1,400 vets, huge numbers of slaughtermen and fleets of contractors' lorries, thousands of farmers, their families and neighbours in the countryside began to experience real fear.

From every area to which the tentacles of MAFF reached out, similar stories began to be heard. A farmer would look out into his yard to see a fleet of vehicles arrive, with armed men. A ministry vet would produce a piece of paper to say his farm was being served with an "A Notice", with the words "contiguous cull" scrawled across it. All his stock had to be destroyed. It was no good protesting that the animals were perfectly healthy. The law was the law. If there was any trouble, the farmer might well find himself looking at a bill of thousands of pounds in legal costs and the animals would simply end up being killed anyway.

The sound of shooting went on for hours, even days. Even outhouses were searched to make sure some stray lamb or calf had not been hidden to save it from the slaughter. Eventually the farmer's life's work had been reduced to a mass of dirty corpses which, possibly many days later, would be dumped into trucks by diggers, to be carted off to some distant burial pit.

With such a vast killing-machine now at work, it was hardly surprising that stories of grotesque blunders, amazing official

arrogance and barbaric cruelty abounded. There was, for instance, the day a vet and two soldiers arrived at Punderland Farm near Great Broughton in Cumbria, owned by Wayne and Julie Nuttall, and proceeded to kill 200 ewes and 300 lambs, insisting they were inside a “three kilometre” cull zone. They also killed a pet pig belonging to the Nuttall’s young sons. Only then did the soldiers discover they had got the grid reference of the farm wrong by one digit, despite using a satellite global positioning system. They should have been slaughtering on a farm 100 miles away.

Clive Davies, a Gloucestershire farmer whose 255 cattle were mistakenly culled due to a “clerical error”, said: “You become a statistic. It becomes a rollercoaster. There is no stopping it.” Several farmers in Devon were more fortunate. After being told by one vet that their 20,000 animals were about to be destroyed because they were in the “three kilometre” zone round a suspect farm, another vet came along in the nick of time to say the suspected case was not FMD after all.

Equally lucky was the Scottish farmer who was told he would have to lose his pedigree herd and his wife’s rare Cheviot sheep because infection had been suspected on another farm miles away of which he was part-owner. Under the “dangerous contact” rules his animals must be destroyed. The farmer explained he had not visited his “other farm”. The officials behaved as if he was lying. But in the nick of time, before the killing began, they were called away to Jedburgh, where two farms had been found infected, 30 miles from the nearest case, and 20,000 animals were killed on 26 farms as “contiguous culls”. By the time the officials returned, tests had come back on that “other farm” where all the stock had been “slaughtered on suspicion”. The samples had proved negative. But at least, by happy chance, the farmer’s further healthy animals worth £1m were now spared.

One grave concern now was the way the slaughter spreading across the hills, moorlands and open spaces of Britain was threatening to wipe out scores of rare breeds of sheep, in particular the “hefted” flocks which had been bred for generations to wander freely over vast areas of open countryside, while recognising where they belonged.

The Cheviot sheep of Northumberland and southern Scotland, the Lake District Herdwicks, even lowland Leicester Longwools and many more varieties were now being wiped out on such a scale there were fears whether they would survive at all. And what urban dwellers may not have recognised was the extent to which the familiar appearance of Britain’s upland landscapes absolutely depended on those grazing sheep, to keep them from returning to scrub, bracken and impenetrable thickets of brambles.

What struck many observers was the

brutality with which much of the killing was being carried out. David Owens of Leighton in Wales protested when a slaughter squad was shooting pregnant sheep at random only yards from his home, allowing live sheep to clamber over piles of corpses. When Mr Owen called the police and started to photograph the scene, MAFF officials demanded that the police confiscated his film. The policeman refused, saying he had no authority to do so. When a council slaughterman was filmed on 12 April taking random shots at sheep as he chased them round a field at Gilwern, Monmouthshire, the video was shown on television. Monmouthshire county council said later there was no ground for disciplinary action against its employee, who had been acting on the council’s authority. But the farmer might be prosecuted for allowing his sheep to stray.

Another story which caught national attention was that of Misty the goat, the pet of Kirstin McBride, who worked at Locherbie station. To prevent ministry officials finding her, Misty had been padlocked in a garden shed. When Miss McBride came back from work she found three Land Rovers blocking the road, her mother distracted and the goat lying dead with a plastic bag over its head. The police had entered the house to keep her mother busy in the kitchen while a ministry official crept round the back, broke down the shed door and killed Misty. When Miss McBride allegedly bit a policeman standing guard over the goat’s body, she was arrested, handcuffed and held in the local police station for three hours.

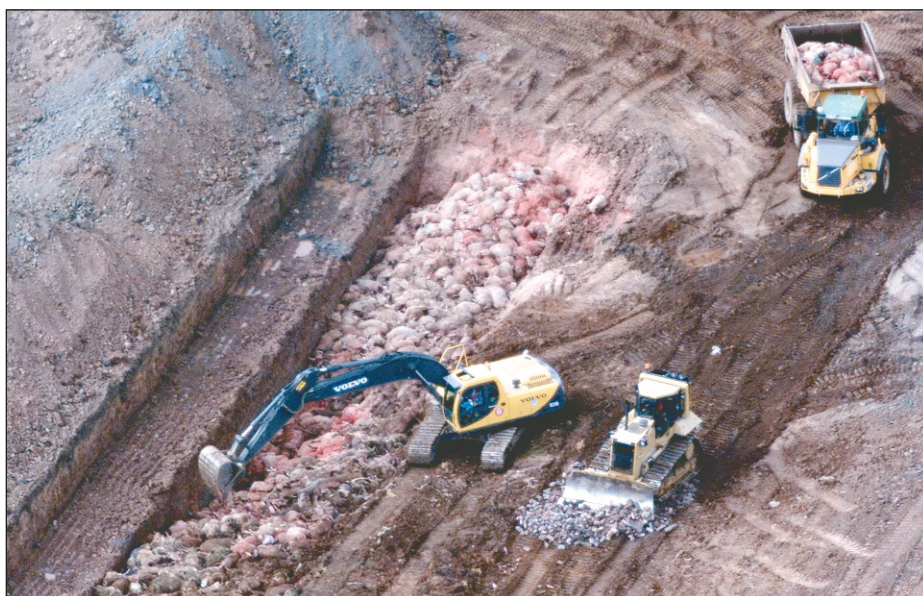
MAFF was equally ruthless with anyone who tried to use legal means to stand in its way. When Dudley Young, a psychologist at Essex University, protested that it would be highly distressing to his small flock of “hobby” sheep to take blood samples from them just when they were in the middle of lambing, so dismissive were

the MAFF officials of his concern for the animals’ welfare he sought an injunction for testing to be delayed until lambing was over. After a 20-minute hearing, when the judge rejected his application, MAFF pursued him for £12,000 in legal costs. The sheep turned out to be perfectly healthy.

It was curious, however, when, elsewhere, owners tried to resist the slaughter of their animals under the “contiguous cull” programme, MAFF several times backed off at the last minute. It was as if officials did not wish to risk having their legal right to slaughter healthy animals tested in court. A conspicuous example was the battle fought for two weeks by a Rudolf Steiner community of 115 people at Oaklands Park in the Cotswolds to stop MAFF killing 100 sheep and 60 cows. Just as the case was about to be heard in the high court, with the slaughter squads expected the following day, MAFF caved in, saying it was now prepared to abandon the cull so long as the animals were monitored.

The incompetent way officials organised the disposal of the ever-growing mountains of dead animals drew protests on even larger scale. There were innumerable stories of potentially infectious carcasses being transported through uninfected countryside, or simply left to rot in fields, as when a driver on the B4080 between Bredon and Tewkesbury noticed blood streaming over the road. When he called the police they discovered it was flowing from the carcasses of hundreds of sheep culled days before.

Whole communities in Co Durham, Powys and Devon were thrown into angry uproar for weeks over the siting of funeral pyres or mass-burial pits near their villages and towns. At Ash Moor, near Petrockstowe, Devon, the ministry of defence began constructing 18 huge barrows, designed to contain the corpses of 432,000 sheep, at a cost of £7m. After a



Most of the 500,000 sheep tipped into mass-graves at Great Orton, Cumbria, were healthy when killed

storm of protest that this would pollute local water supplies, the project was suspended. At an MoD firing range on Epynt mountain in Powys, 15,000 dead sheep had to be dug up when a borehole 100 yards from the site was found to be polluted. But Wales's first minister Carwyn Jones insisted that, if sheep on the nearby Black Mountain were found to be infected, the site would have to be reopened, to bury up to 100,000 more carcasses.

As April approached its end there was scarcely a community in the areas of Britain affected which did not have its own horror stories and which was not outraged by what was happening. When Prof King claimed the epidemic was now "totally under control", farmers and their representatives sent up a howl of disbelief. Ifor Humphreys, a cattle and sheep farmer in Powys, said: "This morning I can see five fires burning in the Severn valley. I'm afraid the evidence is different on the ground."

The Welsh NFU said: "The government seems to have no understanding of what farmers are going through. Its handling of the crisis has been appalling." In the south-west, 50 Devon vets protested at the "needless" slaughter of healthy cattle, calling for an end to the contiguous cull. Wendy Vere, a vet from near Crediton, called the contiguous cull policy "a catalogue of disaster... MAFF is relying on a medieval practice of slaughter and burning, without trying to confirm how far

the disease has spread". Ian Johnson, for the south-west NFU, backed their concerns: "People are sick and tired of carnage. It is like the killing fields out there. I can understand vets, whose primary function is to make animals well and not to slaughter them, asking what on earth all this is for?"

Roger Windsor, a senior vet involved in the massive slaughter going on in Dumfries and Galloway, where half the farms were being "slaughtered out", gave his own answer, by calling on Tony Blair to start listening to vets. "At the moment the prime minister is being given advice from scientists who are more interested in statistics and computers."

The rural economy of Britain was now facing its worst financial crisis since the 1930s. Just before Easter, Tony Blair called for footpaths to be reopened, but councils kept 90 percent shut. With the countryside all but closed to visitors, in the Lake District, Dartmoor, Exmoor and Snowdonia — all without a human being in sight — tens of thousands of hotels, pubs, restaurants and every kind of tourist business faced bankruptcy. The Institute of Directors estimated that the damage already done to the British economy as a whole might soon reach £20bn.

On 22 April the *Sunday Telegraph* reported on another startling paper by Dr Keith Sumption and his team from Edinburgh University, analysing 60 foot-and-mouth epidemics round the world in

the previous decade. It found that those tackled with a slaughter-only policy had been brought under control only when small and very localised. Where the disease was widespread, a slaughter policy had only served to spread it. All countries which had used vaccination had succeeded in controlling the virus within six weeks or less of the first outbreak.

The following day, appearing before the Commons agriculture committee, Nick Brown finally sabotaged Mr Blair's plans at least to make limited use of vaccination in Cumbria and Devon. To continue with relentless killing was now the only option left. But somehow the message wasn't getting through. Despite more than a month of Prof Anderson's accelerated slaughter policy, the public still seemed to think the crisis was as bad as ever. With that June election now little more than five weeks away, it was time for another change of tack. In fact Mr Blair's advisers came up not with one but two. And the secret, they thought, was that, if you couldn't do much to change the reality, at least you could try changing the way it all looked.

The first move was to do everything possible to avoid that disaster Mr Blair had first been warned about when he went to Cumbria on 22 March: the risk of a massive flare-up when the cattle went out on to pastures infected by sheep, with the return to TV screens of huge quantities of burning cows.

Thanks to the cold, wet spring, most

A Happy Easter From MAFF

■ NOT untypical of what was going on across large parts of Britain's countryside in April 2001 was the experience of David and Sue Massie, whose family had farmed on the Earl of Bradford's estate in Staffordshire for 70 years.

At the end of March they were visited by an Australian vet working for MAFF, who admitted he had never seen a case of foot-and-mouth in his life. He inspected the farm's two cattle and 1,550 pigs and found them healthy. But when he looked at some of the farm's 600 sheep he noticed two had "little red dots" on their gums.

He rang MAFF officials at Page Street in London, who gave the sheep "the benefit of the doubt". But when the vet returned next day and found a ewe with blisters on her feet, he ordered the destruction of every animal on the farm.

That night the Massies watched 26 ewes give birth to lambs, and next morning the killing began. The following day, while slaughtermen were herding the pigs into a trailer 20-30 at a time to be shot with captive bolts, they ran out of cartridges. They then began blasting at the pigs with 12-bore shotguns,

smashing a window of Mr Massie's tractor. The slaughter continued until 10pm, and next day the MAFF team returned to bury the mountain of corpses in a field. But two weeks later, on 12 April, two MAFF officials appeared to say that the burial site was "weeping". The bodies would have to be dug up and reburied.

By now so angry was Mr Massie that next day, Good Friday, he rang the Earl of Bradford, who in turn contacted the local BBC television programme Midlands Today. When a crew arrived to start filming a digger reburying the

animals (while being careful to keep off "infected" land), the MAFF officials objected and called in the army. Within 10 minutes two Land Rovers appeared, with six soldiers, who ordered the cameraman to stop filming and strip to his underwear. They put his clothes in a bag, to be disinfected, gave him an overall and told the BBC crew to leave, closing the road past the farm with sandbags. Mr Massie describes how when he asked the soldiers why they had come: "They said they were working for MAFF and were there because of the filming. Their officer

told me that if I caused 'any more fuss' I and my family would be put under house arrest". Next day, when Mrs Massie went into town to buy Easter eggs, she was shadowed by soldiers all the way.

A week later MAFF told the Bradford estate office that samples taken from the Massies' animals had proved negative. But this did not prevent them subsequently killing all the animals on five more farms in the area, despite the fact that tests taken on one farm had already proved negative. Only a month later were the Massie family themselves notified that their tests were negative. They had thus lost their flock of pedigree sheep, 1,550 pigs and two cattle for no reason at all.



The Massie family, threatened with 'house arrest' by the army for talking to the media after all their healthy stock had been unnecessarily destroyed

cattle, particularly in the north, would still be inside for some weeks. In addition, easily the most unpopular and costly part of the contiguous cull had been the slaughter of healthy cattle, for which the government had to pay compensation of up to £1,000 per animal; or in the case of one celebrated pedigree bull, as much as £40,000 for a single animal.

Professor King and his colleagues decided on a gamble. Why not relax the compulsory slaughter of healthy cattle under the contiguous cull and concentrate all the killing effort on the species which seemed mainly responsible for spreading the virus, ie sheep? MAFF, the NFU and the European Commission had all been agreed for some years that Britain's sheep population was at least 20 percent too high. Compensation for sheep could be as little as £20 an animal. In every way it seemed a gamble worth taking: to let the cattle live, unless they were infected, and to launch a wholesale slaughter of sheep, leaving the hills safe for cattle to graze.

No sooner had this new policy been decided than, for once in this crisis Mr Blair (and Alistair Campbell) struck lucky. On 25 April across every newspaper in the land was blazoned the picture of a little "snow-white calf", pulled from under a mound of slaughtered cattle on a Devon farm and, miraculously, after five days still alive.



Phoenix the calf, whose 'reprieve' helped save Alastair Campbell's bacon

As the nation took "Phoenix the calf" to its hearts, it was firstly possible for a kindly, benevolent MAFF to agree to relax its strict rules and give the calf a reprieve. On top of that, it was now possible to squeeze maximum reward from all this upwelling of sentiment by announcing that, as a mark of how successful the government's policy was proving, the slaughter of cattle under the contiguous cull could now be ended.

But that wasn't the only gamble Mr Blair's spin doctors now had in mind, as that election date drew nearer by the week. The other — to persuade the public (and the media) that the government really did have this epidemic licked at last — was very clever indeed.

What They Did Not Want Us To Know

Was MAFF breaking the law on an unprecedented scale?

IN APRIL and May a letter winged its way round the farming network purporting to be from a soldier in the Green Howards, who had been involved in slaughter operations in Worcestershire. "My regiment", he began, "has got all sorts of battle honours for fighting Britain's enemies all over the world; but we are now engaged in hand-to-hand combat with lambs."

He described how his unit was ordered to finish off lambs by hitting them with "a blunt instrument" or drowning them in a river. "One of my mates," he went on, "was detailed to stand by a pig which was giving birth; as each piglet was born and crawled away he had to hit it with the back of a shovel." Worst of all was having to finish off cows shot by slaughtermen. "Some are still crawling around, others clearly still alive but unable to move. We have to beat them to death with lorry spanners. If people really knew what was going on, I think there'd be a revolution."

Whether or not this letter was genuine (its author was never identified), it described scenes not wholly dissimilar to those reported by other observers of what was going on during the April "contiguous cull" programme. And it raised what was fast becoming one of the central questions to emerge from the foot-and-mouth story. Was the government itself, lawyers were beginning to ask, now guilty of breaking the law on an unprecedented scale?

There were three main areas in which a powerful case could be made that MAFF and other government bodies were in serious breach of the law.

Firstly, as we have already discussed, it seemed highly questionable that the government had any legally authorised power to kill healthy animals without proof that they had been directly exposed to infection. By the end of April a respected West Country law firm, Clarke Wilmott Clarke, was preparing a test case against MAFF, claiming that the "contiguous cull" scheme, under which nearly two million animals had already been slaughtered, was illegal in EU law. Directive 85/511 was unequivocal that only infected animals could be killed.

A separate opinion by London barrister Stephen Tromans argued that it was "highly dubious" whether MAFF had the power under the Animal Health Act 1981 to slaughter uninfected animals without proof that they had come into contact with the disease.

Tromans's opinion also set out a long list of further respects in which he argued that methods used to dispose of dead animals had been in breach of both British and EU environmental and health laws. This was in itself confirmed by the actions of government bodies, as at Epynt, Tow Law



and elsewhere, in having to disinter buried carcasses or abandon disposal pyres because it was found that they were exceeding legal pollution limits in their emissions to groundwater, land and air. If any member of the public (or farmer) had been responsible for such offences, they would undoubtedly have faced the risk of criminal prosecution.

The third area in which it seemed clear the government was guilty of breaking the law lay in the wholesale breaches of animal welfare rules by many of those responsible for carrying out the slaughter. The Welfare of Livestock Regulations 1994, also enacting EU law, lay down strict conditions on which animals can be slaughtered for the purposes of eradicating disease.

Quite apart from reports of sheep, pigs and cattle being bludgeoned to death with shovels and other blunt instruments, the regulations instruct that animals stunned with "captive bolts" must subsequently be "pithed" with a rod to the brain, or bled, to ensure they are dead. On many occasions witnesses claimed to have seen MAFF slaughter squads failing to comply with these requirements, which is why there were so many reports of sheep seen crawling out of burial pits, or lambs sticking their heads out of piles of corpses on the back of lorries.

In normal times, if any such offences had been committed by farmers or slaughtermen, MAFF's legal department would have rushed to prosecute; as would the Environment Agency in all the instances where piles of carcasses were left to putrefy for weeks; or blood had dripped from lorries along public roads; or Devon villagers woke up to find their gardens deep in fragments of burnt flesh and animal skin, carried on the smoke of MAFF pyres. Yet so long as MAFF and the Environment Agency were themselves responsible for such horrors, it seemed the chance of prosecution was extremely remote (although the RSPCA did state in May that it was investigating 60 cases of breaches of welfare rules which had been reported to it).

Stage Six: Fiddling the Figures, end April to early May

SUDDENLY in the last week of April the message from government was unmistakably more upbeat. True, the total number of outbreaks had by the end of the month risen to 1,517, an increase of 670 since the end of March. But what mattered more than anything was the reported number of daily outbreaks: that crucial “headline figure” recorded each day by MAFF on its website and publicised by the media.

By this measure, there was no question that, for the first time since the epidemic began in February, the news was beginning to look encouraging. In the last week of April, the average number of daily new outbreaks was 11, down from 16 the week before. The following week it was six. At last there was no doubt the rate was slowing. Furthermore, the success of the army in organising operations meant that only 112,000 animals were now awaiting slaughter, compared with nearly a million at the height of the crisis.

On 2 May Prof David King was able to tell the Commons science and technology committee that, although the epidemic had been “a major national disaster”, predictions that it was now tailing off were proving correct. A key lesson of the crisis for the future, he said, had been the crucial role of scientists in modelling the spread of the disease and in driving forward the cull policy.

At a press conference the following day Mr Blair was even more upbeat. “We are getting the disease under control” he said. “We have now all but completely cleared the backlog of animals waiting to be slaughtered... It is not over yet... but I believe we are on the home straight.”

Certainly there was no greater reason Mr Blair might have been happy to broadcast such a message than the one implied in those bits of paper Prof King had handed MPs barely a week before: the graphs from Prof Anderson’s computer predicting that the daily outbreak total would finally hit zero on 7 June, Mr Blair’s election date.

But when observers began to look more carefully at the evidence behind this spate of good news, there were several reasons for questioning whether the situation was truly as rosy as it had been made to look.

For a start there had been changes to the way MAFF presented the statistics on its website. Each day now, as a new “headline figure” was posted, the figures for previous days were wiped. No longer was it possible to look up the earlier figures to make comparisons. This was particularly important since no separate figures were given for farms slaughtered out under the huge contiguous cull programme. Only by looking at the running total of farms cleared was it possible to calculate that, for every “confirmed outbreak”, an average of

around five more farms (and sometimes as many as 20) were losing all their livestock.

Even more tellingly, crucial changes had been made to the basis on which the “confirmed outbreak” figures themselves were compiled, each of which helped to convey that the daily headline figure was moving downwards much more sharply than it was.

First, it turned out that hundreds of outbreaks which MAFF would earlier have included in its daily “headline figure” were now being reclassified under other headings, as “slaughter on suspicion” or “dangerous contacts”. In the last week of April, when the published total of outbreaks rose to 1,500, the number of such cases had risen sharply to more than 1,000. Removing these would have a significant effect in slowing the rise of the “headline figure”.

The curve was similarly reduced by MAFF’s decision to include outbreaks only when these had subsequently been confirmed by laboratory testing. As Nick Brown had told MPs on 23 April, no fewer than two thirds of the tests on slaughtered animals had subsequently proved negative. Although some of these were animals killed under the contiguous cull, this too would have resulted in a drastic reduction in the number of “confirmed outbreaks”. At the same meeting it was also confirmed that MAFF was no longer routinely testing contiguous cull victims at all. Since a proportion of these animals might well have been infected, this too contributed to reducing the figures.

Then there were now persistent reports from various parts of the country that farms known to have been infected were simply not being included on the MAFF website. On a day when farmers in Cumbria counted no fewer than 24

holdings confirmed as infected in their county alone, MAFF reported only nine new cases in the whole country.

But the most alarming policy change of all appeared to be a startling new reluctance by MAFF’s veterinary panel in

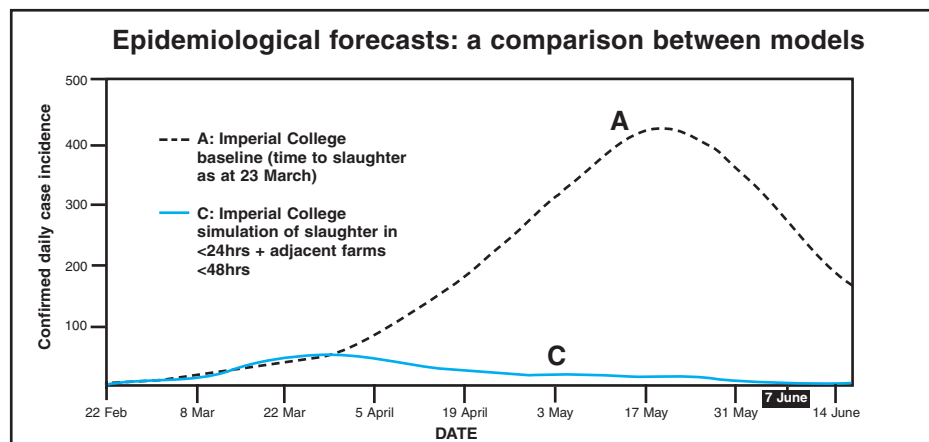
‘Whatever the truth behind published figures, there was no question the government and Number Ten were pulling out all the stops to create the impression mass-slaughter had worked’

Page Street to confirm cases of FMD, even when local vets were adamant that animals did have the disease. So starkly did this contrast with the ministry’s earlier readiness to confirm FMD on the slightest suspicion that it was a further reason Prof Anderson’s computer model now

showed the figures falling so fast.

Typical of the kind of story which was now coming from Cumbria, Shropshire, Devon and elsewhere was the experience of David and Jane Steer of Pywell Farm near Barnstaple, Devon, when they called MAFF to report that sheep they bought in Cumbria the previous September were showing suspicious signs of sickness. Two MAFF vets examined the animals and insisted it was not foot-and-mouth. Next day the vets were still adamant that it was not FMD. Those blisters on the sheep’s tongues must have come from eating thorns. But a few days later two South African vets arrived, with extensive experience of FMD. They had no hesitation in diagnosing that this was why one dead lamb had a tongue “like the back of a crocodile”, and rang to report their findings to Page Street.

Despite arguing for two hours they were told there was “not enough evidence”. The following day the South Africans carried out a post-mortem on the lamb, proving beyond doubt from the telltale cream stripe across its heart that it had died from FMD. After two more hours shouting down the telephone to MAFF, they finally said they were wasting their time and would be



Graph from Prof Anderson’s computer shown to MPs by Prof King on 25 April. Line A predicts outbreak curve if MAFF’s pre-March 23 policy had been continued. Line C predicts the effect of following the Anderson 24/48 hour slaughter policy, showing outbreaks dropping to nil by Blair’s election date of 7 June

heading back to South Africa. Their diagnosis was at last reluctantly accepted and the remaining sheep were slaughtered.

Undoubtedly the spread of the epidemic was now genuinely falling from its high point at the end of March, when 60 cases were confirmed in a single day. The trouble was that, thanks to all the changes made to the basis on which the figures were compiled, it was no longer possible to know what the true figures might be. All of which hardly inspired greater confidence in the predictions from Prof Anderson's computer model.

In fact no one was more forthright in criticising the model's shortcomings than

the government's own leading scientific expert on foot-and-mouth, Dr Paul Kitching. Anderson's computer, he told *Channel Four News*, had certainly come up with "some very seductive graphs". But so inadequate was the data available to be fed into the programme that "one has to question the value of the data coming out". Kitching was particularly withering about the way, when the election date was changed from May to June, the computer projections had seemed to adjust accordingly. He then announced that he was resigning as deputy-head of Pirbright to take up a new post in Canada.

Whatever the truth behind the

published figures, there was no question that the government and 10 Downing Street were now pulling out all the stops to create the impression that their mass-slaughter policy had worked. But out in the countryside hundreds of thousands of people could see another side to the story. MAFF's slaughter teams may have eased up on killing cattle, but only to redouble their efforts to eliminate millions of sheep. The reality was that Mr Blair was now plunging on with an awesome gamble: that the disease would not flare up again when the cattle came out to graze, and that the electorate could now be convinced that the epidemic was all but over.

Stage Seven: Mr Blair's Great Gamble, May to 7 June

PROFESSOR Roy Anderson's computer was wrong. The day when the daily outbreak figure hit zero was not 7 June, as it had predicted, but three weeks earlier, on 17 May. For the first time in three months, as the media dutifully reported, not a single new case of foot-and-mouth had been confirmed anywhere in the country.

The public might well have been forgiven for thinking that the great foot-and-mouth tragedy was nearing its end far sooner than anyone three weeks earlier would have dared predict (even Prof Anderson); and that the slaughter which had horrified the world could now come to a stop.

In fact nothing better conveyed the eerie unreality of what was happening in those five weeks leading up to Mr Blair's election day than that, in the 10 days preceding that when outbreaks fell to zero, the men from the ministry had actually killed more than a quarter of a million animals, on more than 1,000 farms.

Between 4 and 12 May alone, according to figures hidden on the MAFF website, 889 farms had been "slaughtered out", at an average of 125 a day. The daily average of animals killed in that week had been 32,000, nearly three times the average for the previous week. The total number of animals so far destroyed since the start of the epidemic was now nearing six million, nearly a tenth of all Britain's livestock. Yet, from the perfunctory way foot-and-mouth was now being presented by the media, one might have got the picture that this was now very much "yesterday's story", a crisis already beginning to fade into history.

The key to what was happening in those days of May and early June lay in a startling contrast. On the one hand there was the smoothly reassuring picture that ministers and their spin doctors wanted the world to be given, aided by that massaging of the official "headline figure" which was so successful in lulling most of the media (notably the BBC) to sleep.



Security official bars media access to MAFF's 'slaughter HQ' at Gisburn, N.Yorks

Before the May bank holiday on 7 May, ministers had launched a blitz on the need for "the countryside to return to normal". Councils were called on to lift their bans on using hundreds of thousands of miles of footpaths. Alton Towers, Stonehenge and Anne Hathaway's cottage were reopened. When Tony Blair staged photo-opportunities at the Viking centre in York and the Bronte rectory at Haworth, and John Prescott was sent on a whistlestop tour to boost rural tourism, the BBC obligingly made it the main news of the day.

On the other hand was the reality of what was still going on out in the hills of Cumbria, the wooded wastes of the Forest of Dean and the fields of Devon. In some ways the air of terror prevailing over large parts of Britain's countryside was now worse than at any time before, as in Dumfries and Galloway, where the word came from one shaken farmer that "they're killing everything in sight".

Just occasionally the odd little horror story did distract the news media whose attention was now largely elsewhere. There was, for instance, the experience one Sunday of the customers of the Miners Arms, a popular pub in the Forest of Dean, one of the attractions of which, particularly to children, was the sight of a cow and a horse living together in the paddock opposite the pub garden.

Moo the Cow and Clearwell Katy the horse were such close friends, as Moo's

owner Lesley Worgan put it, that "I think the cow thought she was a horse". On a Sunday lunchtime, when the pub garden was packed, eight MAFF officials turned up and said they had come to kill Moo. Since the cow seemed quite healthy, they were asked to test Moo to see whether she had foot-and-mouth, as the law required. It would be "too expensive", they replied.

The pub's customers then watched in disbelief as the cow was put to death with a fatal injection and removed from the paddock dangling from a mobile crane yards from diners eating their roast beef. Many in fact were so upset by this grisly scene they had already cancelled their orders and left. Moo's owner said: "I think they are now just killing for the sake of killing. It is horrible."

Border trouble and the Scottish deal

■ AN interesting sub-plot was now developing in Scotland, which helped explain why SERAD (the Scottish Executive for Rural Affairs) was clearing the hills of Galloway, Dumfries and the Scottish borders of sheep with such ruthless determination.

This came to light when the Duke of Buccleuch's estate took legal action to resist the slaughter of 32,000 rare South Cheviot sheep on eight farms in Roxburghshire. The estate's management were unable to understand why these healthy sheep had to be killed under the "contiguous cull" when there had not been a confirmed case of FMD in the district for two months.

It turned out that SERAD had come to a secret deal with the European Commission and the SVC whereby, if the "region" of Scotland could be shown to be disease-free for three months, it might under OIE rules be given back its "disease-free export status" ahead of the rest of the United Kingdom.

A condition of the deal, however, was that special measures had to be taken to ensure a "fire-break" along the border to avoid infection spreading from the "hotspot" of Cumbria next door.



Carolyn Hoffe guarded by police after losing the fight to save her five healthy pet sheep

Moo was, of course, another victim of Prof Anderson's contiguous cull, as were the five pet Dutch Zwarbles sheep belonging to Carolyn Hoffe, whose cottage was in Glasserton, in the heart of the Dumfries and Galloway killing fields. So terrified was their owner when a case of infection was confirmed on a farm within "three kilometres" of their paddock that she brought them to stay in her living room. Two days later SERAD vets, accompanied by police and two armed Gurkhas, forced their way into the house and slaughtered them. Mrs Hoffe, who sat outside while the deed was done, told Sky News: "I want Tony Blair up here. I feel everything around me is being sacrificed. I wouldn't try to replace them, it would be like asking me to replace my mother." Shortly before the sheep were killed, in a flash of black humour, one had knocked a book off a shelf so that it fell open. The sheep peered down at the page, as if it was reading. The book was called *Vegetarian Cookery*.

A few days later on the Galloway coast, some 70 protesters began barricading themselves into the Mossburn Animal Centre, a sanctuary for rescued animals including 14 goats and three sheep. The owner, Juanita Wilson, invested her life savings of £10,000 on mounting a legal challenge to the officials of SERAD in the Edinburgh courts. During a week-long stand-off, the media attention drawn to this battle became increasingly embarrassing to Scotland's rural affairs minister Ross Finnie. Hours before her lawyers were due to return to court to argue that the contiguous cull was illegal, the Scottish executive announced it was ending "the automatic culling of livestock within three kilometres of an infected farm". In future each individual case would be assessed on its merits. In Scotland at least, the contiguous cull policy was no more.

It was no accident that high-profile challenges to the legality of the contiguous cull had most obviously been made, not by commercial farmers but by animal sanctuaries and pet owners. Not only were farmers being discouraged from raising any protest by the Scottish NFU, but many were content to remain silent because of the very generous compensation they were being offered by SERAD, far more than they could have got for their animals on any open market — even if any market was open. Away from the hills, SERAD was even encouraging farmers to allow their land to be cleared of sheep and immediately plough it up for barley and other subsidy-earning crops.

But in a curious drama now unfolding at the other end of the country, one big commercial farmer was making just as determined a last-stand against the legality of the contiguous cull as his smaller comrades-in-arms in Scotland. In early May there had been a sudden panic on the Somerset-Devon border when a rash of new cases of FMD appeared, miles from any previous outbreak. Somerset, having had only one dubious outbreak at the start of the crisis, had been officially declared "disease-free" only two weeks before. Guy Thomas-Everard, who owned 980 healthy pedigree cattle on the southern edge of Exmoor in Somerset, was therefore outraged when MAFF served him with an "A Notice" declaring that his cattle should be slaughtered simply because his farm had been visited 12 days before by a contract worker suspected as a possible "dangerous contact".

Retaining lawyers to fight his case through the courts, he and his fiancée Julia Fairey barricaded themselves into their farmhouse two weeks before their planned wedding and prepared to withstand a long siege. After five days, on 11 May, MAFF dropped its slaughter plans, saying the herd "no longer posed a risk".

The following day it was reported that Alayne Addy, a trainee solicitor with a leading West Country firm, had saved around 100 Devon herds by insisting on each occasion to MAFF that killing under the contiguous cull was unlawful under both EU and UK law. It certainly began to look as though, privately, MAFF's own lawyers were only too well aware of the true legal status of a policy described by Anthony Gibson, the NFU's director in the south-west, as "one of the most bloody, tragic and disgraceful misjudgements ever committed in the name of science".

Nevertheless, away from the headlines,

as MAFF's "daily outbreak" figures continued to drop, the massive sheep-cull in England and Wales continued, clearing 100 farms a day. A further trick which came to light, whereby MAFF was managing to hide what was going on, was its use of a new edict — the Waste (Foot and Mouth Disease) (England) Regulations 2001 — to force waste management companies, under threat of criminal prosecution, to accept vast quantities of dead animals to be buried in ordinary landfill sites, most of this done at dead of night. One firm, Viridor, revealed it had so far been forced to bury "366 loads, 3,980 tonnes of sheep and pig carcasses", at its site near Newton Abbot.

One thing MAFF could not hide was the sudden flare-up of fresh outbreaks of the disease in a wholly new area, over hundreds of square miles around Settle in North Yorkshire. As an army of white-overalled slaughter teams fanned out over the hills and dales, there were reports that hundreds of thousands of sheep and cattle were being killed, affecting more than 100 farms. But MAFF refused to publish figures on its website, claiming that, under the Data Protection Act, it was no longer allowed to give details of individual farms.

When Nick Brown visited Settle on 24 May, for a closed meeting in the town hall with officials from the NFU and the local council, police were out in force to protect him from a crowd of 100 angry demonstrators, some of whom were in tears. Safely inside Mr Brown told a TV interviewer: "Every resource has been made available to bear down hard on this disease ['bear down' was a phrase he now used in almost interview]. I have come here in response to calls for me to come and see what



Juanita Wilson, whose fight to save her Mossburn animal sanctuary forced the Scottish executive to back down by abandoning its 'contiguous cull'

was happening." He dismissed claims that the government was trying to cover up the scale of the continuing slaughter for political reasons as "urban myths". As he left a large banner was raised over the front of the town hall reading "Settle culled by politicians".

Brown's visit had coincided with MAFF's announcement that its official total for the number of slaughtered

animals since February had now topped three million. This was certainly less than half the true figure. It did not include 1.2 million animals killed where overcrowding had enforced their slaughter under the ministry's welfare scheme; two million lambs, calves and piglets (*Farmers Weekly* estimate) which were officially counted with their mothers as "one unit"; and an unknown additional figure for all the animals whose deaths were for various reasons not recorded.

As 7 June approached, there was a distinct moment of unease in Downing Street when over the second May bank holiday weekend the disease struck down two dairy herds in Cheshire. This was on the edge of the Cheshire plain/north Shropshire area known as "the biggest milk field in Europe" (where the 1967/8 epidemic had been centred). Was this the much-feared moment when the epidemic flared up anew in cattle? But the two outbreaks remained isolated. Although the number of outbreaks officially admitted by MAFF since the beginning of May had only risen from 1,517 to 1,718, a million more animals had been killed. But foot-and-mouth had all-but dropped off the news agenda. With the aid of considerable luck, and some skilful news management, Mr Blair's gamble had paid off. For this, and all the other blessings he had brought to Britain, he was rewarded on 7 June with another huge victory.

MAFF's reign of terror

■ EARLY in the morning of Sunday 13 May the villagers of Knowstone, Devon, were surprised to hear the sound of rifle shots. When they ran out of their houses to see what was going on, they saw a crowd of men in white and blue overalls running around, blazing away with rifles at a herd of Limousin cattle.

As one after another fell to the ground, dozens of remaining animals went berserk, desperately trying to escape from the field, even tearing their way through thick Devon hedges reinforced by up to six strands of barbed wire. One neighbouring farmer was astonished to see 19 cattle scrambling through a hedge on to his farm, sweating in fear, their tongues lolling out, with blood pouring from wounds all over their bodies. He said he had never seen such a look of terror on any animals in his life.

Thus began a nightmare which, over the following four weeks, was to convince the villagers of Knowstone they were living in a police state. It took MAFF and the army two days to complete the killing of the original Limousin herd, which had been diagnosed as having foot-and-mouth.

Some bullocks had even tried to hide in nearby woods. But the officials then began working round the village, killing the animals on one farm after another under their contiguous cull policy. In June Mr and Mrs Winslade, in their 70s, were shattered when they were told they were about to kill their prized and healthy Charolais cattle. When

they suggested challenging the ministry's legal right to destroy the organically-accredited herd which had been their life's work, the officials threatened them with arrest and told them that, if they went to court, they would only find themselves having to pay MAFF £30,000 in legal costs.

The Winslades barricaded their gates and, supported by neighbours including a former high sheriff of Devon, mounted guard to prevent MAFF gaining access. At five in the morning, supported by two dozen policemen in full riot gear, the slaughter-team arrived to force entry. Mrs Winslade was by now so ill with the strain of their ordeal that her husband wearily gave way and the cattle were destroyed.

When the officials came to tell Stephen Phillips that they were about to shoot seven healthy merino sheep belonging to his wife Lindy, their timing was impeccable. Lindy, in her 40s, had died of cancer only two days before. The vets told Mr Phillips they could not even allow his dead wife to be removed from the house, and her funeral would have to be postponed. But this provoked such a storm of media coverage that for once MAFF retreated.

From the original slaughter of the Limousin cattle, conducted in clear breach of the Animal Welfare Regulations 1994 and the Animal Health Act 1981, almost everything MAFF got up to around Knowstone in those four weeks between mid-May and mid-June was illegal. They must have broken the criminal law on hundreds of separate occasions. No one was ever punished.

Stage Eight: Mr Blair's Pyrrhic Victory, June to October

ONE of Tony Blair's first acts in the wake of his general election triumph was to announce the abolition of MAFF. The onetime "ministry of agriculture and fisheries" was now to be absorbed into a new "super-ministry": the Department of the Environment, Food and Rural Affairs (DEFRA), under Mrs Margaret Beckett.

Any reference in its title to agriculture or fisheries was consigned to the rubbish bin of history (as was Mr Nick Brown, who was humiliatingly demoted to the new non-job of "minister of work"). But on closer examination, MAFF was still there, very much as before: the same officials, in the same buildings, administering the same policies. It was hailed as "the most cynical makeover since Windscale changed its name to Sellafield".

Now the election was out of the way, a feature of the weeks which followed was the renewal of demands, more vocal than ever, for a full public inquiry into MAFF's final spectacular achievement: the managing of the worst foot-and-mouth epidemic in world history.

Some of these demands came from surprising quarters. The Trading Standards Institute, representing 2,500 trading standards officers, was almost an organ of government. Yet on 12 June it called for a

"full public inquiry" into the handling of an epidemic which had produced such "catastrophic effects". The "thoughtless" policies rushed through by ministers had created "an economic, social and environmental disaster" which required "the fullest scrutiny in a public arena, chaired by a top judge".

A similar call was made on 15 June by the Royal College of Veterinary Surgeons, many of whose members had been involved in the epidemic. Once the disease had been eradicated, there should be "a full independent inquiry", modelled, said the college's president Roger Eddy, on the 1969 Northumberland inquiry. "We need to know how the outbreak started and spread so quickly, and look for preventive measures which are essential to minimise the risk of such an outbreak ever happening again."

When Mrs Beckett said merely that "the whole issue of an inquiry continues to be under discussion", the *Daily Telegraph* commented that there was "something almost flippant" about the way she had shrugged off a call from the leading professional body of British vets.

If there had been some "minor train crash on a suburban line", the government "would immediately have ordered a full

inquiry to discover its causes, the way in which the emergency services had handled it and ways of preventing a similar accident in future". Yet here was a disease which had "led farmers to suicide and wiped out two entire industries in some parts of the country", which raised every possible question about the way it had been handled by the government, and all Mrs Beckett could do was say that the possibility of holding an inquiry was "under discussion".

When the *Guardian* joined the chorus of calls for an inquiry "sufficiently comprehensive and independent to ensure the errors of the last four months are not repeated", Mrs Beckett petulantly commented: "What is important is not just to identify what we could and should do better next time, but also to highlight the many things which went well."

There were certainly many questions, large and small, which a public inquiry might have wished to look into, and the weeks between June and August added more to the pile. One reason the Royal College of Veterinary Surgeons was calling so strongly for an inquiry was that its June council meeting had heard a particularly disturbing speech from Roger Windsor, the senior vet in Dumfries and Galloway

through the height of the crisis.

He had begun by saying that, as the vets' leading professional body, the college should have withdrawn any further cooperation with MAFF when the running of the crisis had been taken over by the politicians and by the government's two chief scientific advisers, King and Anderson, neither of whom had any veterinary qualifications. These two men, he said, had been responsible for the

unnecessary destruction of up to two million animals "in the name of elections and mathematics", with their contiguous cull or "postcode slaughter policy".

Windsor reserved special scorn for the role of Prof Anderson, whom he said "should be called not the Professor of Epidemiology but the Professor of Extermination". He then rattled off examples of ministry incompetence he knew about at first hand, such as the farm in Galloway where the owner was milking when a convoy of army vehicles drove up to slaughter his sheep. They had been given the correct map reference, but the wrong map.

Animal welfare, he said, had been "completely ignored". Farmers had been forbidden to move healthy animals even when they were starving and filthy, and were forced to keep animals "in conditions for which under normal conditions they would have been prosecuted".

But the greatest professional scandal which "will forever be a blot on the reputation of MAFF", Windsor went on, was the way, in pursuit of the contiguous cull, vets had been routinely forced to breach their professional code by signing "Form A" declarations that farms were infected, even though they had inspected the animals and found them healthy.

They had been told by senior ministry officials (themselves vets) that, if they did not sign the forms, the livestock would all be killed anyway and the farmer would receive no compensation. Farmers had similarly been "blackmailed" into accepting the illegal slaughter of their sheep by being told that, if they did not cooperate, their cattle would also be killed.

Windsor's evidence of the bizarre methods employed by MAFF to prosecute a policy which, as a senior vet, he had no hesitation in describing as illegal, was reinforced by the high court when on 21 June Mr Justice Harrison gave his ruling in the case of "Grunty" the pig.

This celebrated animal, which had starred in the film *Babe*, was owned by Rosemary Upton of Hill Farm, near Wellington, Somerset. On 14 June, DEFRA had ordered the killing of Grunty and 11



The August mass-cull of tens of thousands of healthy sheep in the Brecon Beacons was carried out to comply with a secret EU deal

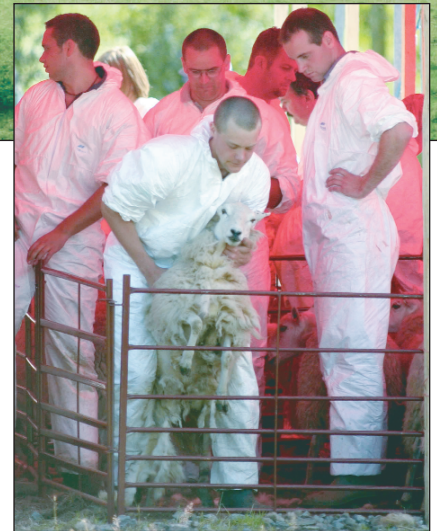
pedigree sheep simply because Mrs Upton had once visited another smallholding which had been infected. Her lawyers pointed out that her animals were healthy and posed no risk to other livestock; that she had had no contact with other livestock for six weeks before the slaughter and that she had been careful to take every conceivable "biosecurity" precaution.

DEFRA's QC argued that the minister had been given the "widest possible powers" for public health reasons. It was precisely this point which the judge rejected. Whatever DEFRA might claim, he ruled, the minister was "not entitled to apply a blanket policy of slaughter". The ministry had to assess each case on its own merits. It was a judgment which struck right at the heart of the principle underlying the contiguous cull. The central strategy on which the government based its foot-and-mouth policy had in effect been ruled illegal.

There was no way, of course, that any of this was going to stop DEFRA's vast slaughter programme, as it continued its remorseless progress over huge areas of western and northern Britain. In the week after the election 80,000 animals were killed. The following week the total was 93,000. And so it was continue through weeks and months of summer, at the very time of year when folklore dictated that warm, dry days should have killed the virus off and brought the epidemic nearer to its natural end.

Sometimes these outbreaks represented the inexorable outward spread of the disease from areas where it had long been rampant, as when it broke into the southern part of Cumbria, after months when it had so devastated the northern half of the county that 80 percent of the farms in north Cumbria were now without animals.

At others it suddenly appeared in some wholly new area, miles from the nearest previous outbreak, as in Somerset, the North York Moors, central Lancashire, Leicestershire and, in August, around Thirsk in north Yorkshire, where scores more farms were taken out and a "Blue Box" restriction area was set up, covering 400 square miles, in which no move could



be made on or off a farm without an official licence and often the need to be accompanied by one of the officials themselves.

On yet other occasions new outbreaks represented a reappearance of the virus in areas where it had come and gone months before, as when scores of farms were taken out around Hexham in south-western Northumberland in September, and another vast "Blue Box" area was created by DEFRA, imposing the same restrictions, amounting almost to "house arrest", on hundreds of farmers and their families.

As experienced observers had wearily begun to conclude, it seemed what we were now looking at could no longer be called an epidemic. It was a countryside in which the virus had become endemic, where the spread of the disease could be due to any of a whole multitude of unpredictable factors, from human agency to wild deer. And the one thing which seemed increasingly certain was that simply to chase after it each time it appeared, to unleash yet more bursts of slaughter and more blizzards of bureaucratic restrictions, was never going to provide any real solution to the problem. It was something we might now have to live with for years to come.

There was another reason for this continued slaughter in these summer months and it highlighted one of the central absurdities of the whole chaotic mess into which British agriculture had now been plunged by the government's handling of the crisis. In July and August considerable attention was focused on a huge slaughtering operation on the Brecon Beacons in south Wales. Tens of thousands of hefted sheep which wandered a vast area of hills and mountainsides were being

rounded up and placed in pens, where blood samples were taken to see whether they tested “positive for antibodies”. If they did, those sheep and all those in the pens around them were slaughtered. The explanation offered to the public was that the tests had demonstrated the presence in the sheep of foot-and-mouth.

In fact these so-called Elisa tests (for enzyme-linked immuno-absorbent assay) proved nothing of the kind. The presence of antibodies merely showed that, sometime in the previous six or nine months, those sheep had been exposed to the virus and their immune systems had generated antibodies in response.

It was certainly theoretically possible that some of those sheep were still actively infected with foot-and-mouth and that they could pass the disease on. But what was much more likely, since the sheep looked perfectly healthy, was that they had been exposed to the virus months before and had generated antibodies which allowed them to make a full recovery.

They were now, as a result, not only free from the disease but immune to it. In other words, what the officials of the Welsh rural affairs department were actually doing was slaughtering the very animals who were least likely to be or to become infectious. There are scientific tests which could have distinguished between any sheep actually infected with the disease and all those now immune to it. But so crude was the Elisa test used by the officials that it could not show this one way or the other.

What neither the Welsh assembly nor the British government ever explained was why officials were engaging in this futile and crazy exercise (since, once the hefted sheep were removed from the Brecon Beacons, there would be nothing left to crop the grass and they would soon return to a rather nasty form of overgrown wilderness, or have to be planted with trees).

The reason lay in a secret understanding which had been reached between the British government and the European Commission (overseen by the SVC) that, if ever Britain was to recover its “disease-free export status”, one vital precondition was that all the sheep roaming over the wilder uplands of Britain should be serologically tested. And wherever antibodies showed up, those animals should be slaughtered. There was no scientific reason for this. It was merely another forlorn bureaucratic response to the utter intractability of the mess which had arisen because FMD had now spread so widely through Britain’s national sheep flock that it was virtually endemic.

Having sampled the Brecon Beacons, as DEFRA had already quietly begun to do in certain areas of England, this serological testing programme would continue, if necessary for years to come. And all in the name of that goal which had been the ultimate justification for everything else

MAFF/DEFRA had been doing for the previous six months: the restoration of that cherished “export status” which now, thanks almost entirely to the efforts of MAFF/DEFRA, seemed further away than ever.

The Financial Cost

ANOTHER issue which helped fuel the rising clamour for a public inquiry into the foot-and-mouth disaster, as summer went on, was its awesome financial cost: both directly to taxpayers and indirectly, in terms of damage inflicted on the wider economy and the losses incurred by the hundreds of thousands of businesses it had deprived of income.

Perhaps the most striking feature of this drain on the economy had been the startling contrast between the way the government had in certain directions poured out money in a seemingly unstoppable stream, and the vast numbers of people struggling to survive without any government help whatever.

On 30 June DEFRA revealed some details of the ministry’s spending to date. Its direct costs thus far were shown at around £2,100m, nearly three times MAFF’s entire basic budget in the previous

year and equivalent to more than 1p on income tax. The biggest component in this was compensation to farmers whose livestock had been slaughtered, amounting to £889m (claims for each farm culled had averaged £116,000).

An array of other items included £195m spent on cleaning and disinfecting farms; £152m for the transportation and disposal of carcasses; and £79m to pay veterinary bills and for the cost of blood testing.

Payment of compensation was strictly governed by rules laid down by Brussels. Farmers whose stock was killed were entitled to receive full market value for their animals, assessed by independent valuers. On paper 60 percent of this was contributed by the European Commission, although under an arcane formula related to the UK’s EU “budget rebate”, the EU’s contribution was in fact only 17 percent, with the remaining 83 percent paid by the British treasury. Furthermore, it soon became apparent that the figures estimated by the independent valuers had in most cases been remarkably generous, in light of the abnormally depressed state of the livestock market pre-FMD.

Although this had played a significant part in buying the willingness of many farmers to see their animals slaughtered, as

A Tale of Two Videos

■ A CONSPICUOUS thread throughout the crisis, particularly when the government was embarrassed by yet another flare-up of the epidemic, was the parrot-cry from ministers that farmers themselves were to blame by failing to observe proper “biosecurity”.

Why this particularly irked the farmers was not just that the vast majority were highly conscientious in the measures they took to avoid spreading the disease. It was that, in every part of the country, they were astonished by the almost routine laxness being shown by MAFF’s own officials and employees over the most basic hygiene precautions.

Tales were legion of vets arriving from infected premises on to clean farms without changing their clothes or even bothering to disinfect their boots; of unsealed trucks loaded with dripping, infected carcasses driving through miles of uninfected countryside; of slaughtermen wearing the same overalls throughout the day, then walking into their hotels at night in the same clothes.

In July DEFRA announced it was sending out a video, at a cost of £750,000, telling 90,000 farmers how to halt the spread of foot-and-mouth disease by making sure they observe strict “biosecurity” at all times. Farmers were given the startlingly novel advice that they must keep their farms, clothes and vehicles disinfected, and wash their hands as often as possible. But a clue as to the real reason for this splashing out of taxpayers’ money came when it was accompanied by a DEFRA briefing to journalists that “government experts believe farmers are largely to blame for spreading the disease by failing to take adequate precautions”.

Only a few weeks earlier, as it happened, another video had been made, costing rather

less, by north Yorkshire farmer Frank Wrathall. It was the day after he had lost all his healthy dairy herd and sheep under the contiguous cull. When ministry trucks came to cart off his dead animals to Cumbria, he filmed one vehicle arriving straight from the burial pit covered with “animal excrement and the usual seepage associated with dead stock”, obviously not disinfected. But, as the video showed, papers signed by DEFRA officials certified that the vehicle was clean.

Mr Wrathall was outraged. He and his family, including three small children, had been so strict in observing all the hygiene rules that for nearly a month they had not dared move off the farm at all for fear of bringing back the virus. He had heard from neighbours that DEFRA’s own officials and employees were being notoriously casual about “biosecurity” rules. But here on his camcorder was the proof, only made worse by those fraudulent certificates.

Ever since it first became clear in March that FMD was out of control, it had been inescapable how regularly government spokesmen, from Tony Blair and Nick Brown down, had gone out of their way to suggest that the reason the disease was spreading was the laxness over “biosecurity” of the farmers themselves. It did not take long for shrewd observers to put two and two together.

This was clearly a deliberate and cynical game. Since it was obvious that the ministry’s mass-slaughter policy was not working and that FMD was likely to be around for months, possibly years to come, the aim was to set up the farmers as the fall-guys. The only people to blame for this disaster, we would one day be told, had been the farmers themselves. As was demonstrated by Frank Wrathall’s video (and others shot later on the Brecon Beacons) the true story was rather different.

we shall see it was eventually to provoke a serious backlash from the commission, which came to question the whole basis on which MAFF had assessed the values on which compensation was paid.

Perhaps the most obvious losers from this EU compensation system (apart from taxpayers) were the much larger number of livestock farmers whose animals were not infected or slaughtered, but who for months were denied a livelihood by the closure of markets and draconian restrictions on animal movements. At one time it was estimated that 60,000 farms were subject to these restrictions, a quarter of all livestock farms in the country. The sufferings of these farmers and their families, forced to survive without income (while often being more or less confined to their farms) were far greater than the public ever realised.

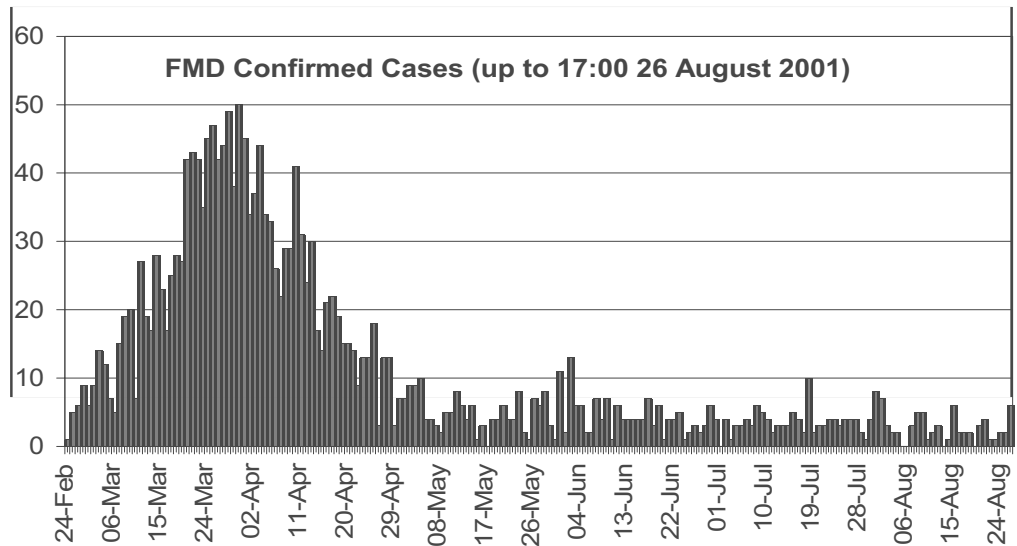
But under EU regulations the British government was prohibited from giving these farmers any financial help whatever. It scarcely cheered them to learn of the huge sums the government was handing out to some of the farmers whose animals had been slaughtered: like the 37 “millionaires” who, as DEFRA leaked to the *Sunday Times* in August as part of its “anti-farmer” campaign, had each received more than £1m in compensation (one farmer got £4.2m).

When it was revealed that Willy Cleave, the Devon sheep dealer whose holdings around Hatherleigh had been the original source of infection in the county, had received a ministry cheque for £1.3m, it provoked intense anger in an area where some farming families had only been able to eat because kind-hearted neighbours had supplied them with food parcels.

With such astronomic sums of public money swilling around it was hardly surprising that for some people the crisis had come as a bonanza. Many of the army of more than 1,000 vets recruited to assist with tracing, diagnosis and slaughter were receiving around £260 a day, plus lavish accommodation and meal allowances (the equivalent of nearly £80,000 a year); but 37 Spanish vets, recruited in Spain by a firm called Eville and Jones, were shocked to learn the company was siphoning off £150 a day from the money paid by MAFF for their services.

When they applied to work directly for MAFF, to earn the full amount, the company took out high court injunctions to stop them, claiming they had signed an exclusive contract (MAFF’s only comment was that “the terms and conditions under which they are employed are purely a matter for them”).

Far greater sums still, running into many millions of pounds, were being earned by some of the contracting firms responsible for organising the construction of burial pits



DEFRA’s ‘daily outbreak’ chart is misleading. All it shows is when MAFF/DEFRA became aware of ‘outbreaks’ it was prepared to confirm. It omits the much larger number of farms where animals were slaughtered under the ‘contiguous cull’ and other categories, and fails to reflect the epidemic’s onset long before it was officially identified. The sharp rise in March also reflects a 600 percent increase in the number of vets tracking the disease

and pyres, and the fleets of trucks required to ferry millions of carcasses for disposal.

One company which won a notable share of the contracts under MAFF’s £152m budget for carcass disposal was the Scottish transport firm Snowie Ltd (which since 1996 had also made a fortune from the ferrying around of 400,000 tonnes of rendered-down cattle remains required by MAFF’s BSE-related scheme to destroy four million over-30 month old cattle). By April Snowie’s lorry fleet, including hundreds of trucks, had become a prominent feature of the huge disposal programme all over the north of England and southern Scotland.

But again there were those who seemed to miss out, like the 17 smaller, independent contractors who had been hired by MAFF in the early days of the crisis on the promise that their vehicles could eventually be disinfected and return to their normal task of transporting grain and other human and animal foodstuffs. When, in April, all their contracts were simultaneously cancelled, they were told the vehicles could never be used to transport food again, threatening most of the firms with bankruptcy. When their case was presented to MAFF by the Road Haulage Federation, a meeting was promised to discuss the problem. But as weeks went by it seemed MAFF officials could never find space in their diary to agree when this should take place.

Another area of runaway public spending was the disinfecting of farms where animals had been slaughtered. For months there had been stories of the bizarre lengths to which MAFF had taken many of these operations, including, it was reported, the systematic dismantling and rebuilding of five grade one listed barns.

In late August there was a flurry of media excitement when it was reported that Mr Blair had exploded on learning that the average cost of disinfecting each farm was £104,000. In reality, a source inside

DEFRA privately explained, the disinfection costs had been nowhere near so high, more like £50,000. But when all other expenses, including compensation, were taken into account, the total cost for each infected farm was around £250,000. And for each infected farm, an average of 4.7 more had been “killed out” under the contiguous cull. So, with 9,500 farms killed out (by end-September), the total cost to taxpayers on a farm-by-farm basis was approaching £2.5bn, a figure rising with every week that passed.

What a dramatic contrast this posed to the plight those hundreds of thousands of people whose livelihoods had been seriously affected by the crisis but who had no direct claim to compensation. Apart from all the farmers deprived of income by government action but to whom EU rules prohibited help, there were countless businesses related in one way or another to farming itself, such as markets, transport firms and agricultural suppliers. Large veterinary practices in areas most affected by mass slaughter reported losses in income of up to 40 percent. Tens of thousands more businesses, dependent on every kind of leisure activity, from hotels to fell-walking, were hit by the closure of the countryside and the temporary collapse of the £12bn-a-year rural tourist industry.

From the early days of the crisis the government had indicated that it would look into ways of compensating these sectors. On 13 March it had been announced that Michael Meacher, the minister with responsibility for rural affairs, was setting up a “task force” to head off a feared tidal wave of rural bankruptcies, by such means as postponing demands for business rates. But here too government hands were tied much more than it liked to admit by its EU treaty obligations on “state aid”. When in April a £50m rural business recovery scheme was

set up, to provide grants of up to £15,000 to small businesses through the new regional development agencies and their Business Links, it soon became clear that, while applicants became ensnared in bureaucratic nit-picking (see panel), much of the money was simply being swallowed up in admin.

Regularly through the summer one sector after another reported the catastrophic effects of FMD on business. The outdoor equipment industry recorded a drop in sales of £40m. In August the Youth Hostels Association announced it would have to sell off "a substantial number" of its hostels to pay for a shortfall of £7m on its yearly income of £30m.

As hot-air ballooning was brought to a virtual complete halt, manufacturers had seen their yearly output of balloons drop from 800 to just two. And this was merely a small part of the damage the crisis was inflicting on Britain's £64 billion-a-year tourist industry in general, which in September (just before the terrorist strike) reported that the number of overseas visitors had fallen during the year by 10-15 percent. Foot-and-mouth was blamed for sharp reductions in profits by companies ranging from Eurostar and British Airways to Harvey Nichols and the de Vere hotel group.

It was far too early for accurate figures yet to be available showing just how great the overall damage to Britain's economy had been. Preliminary estimates had ranged from £8bn to the £20bn put forward by the Institute of Directors. If the financial loss turned out to be anything like on this scale, it would, in terms of lost tax revenues and additional public spending, cost the government anything up to £8bn, seriously undermining chancellor Gordon Brown's plans to spend on the health service and education.

It began to look as if the government's response to a mere animal disease had struck the worst single blow suffered by the British economy since the exchange rate mechanism (ERM) fiasco in 1992. Hardly surprisingly, by August the clamour for a public inquiry was becoming louder by the week.

Indeed, one potentially embarrassing inquiry was already now promised, by the Commons public accounts committee, whose chairman, Tory MP David Davis, placed an investigation into the public spending aspects of the crisis at the top of its autumn agenda. A second embarrassing inquiry was already under way, ordered by OLAf, the European Commission's anti-

fraud office. This was looking into claims that the British government had wasted EU money by its over-lavish compensation payments to farmers for slaughtered animals.

In August it was announced that, until this investigation was complete, all compensation payments from Brussels would be suspended and that, even when they were resumed, payment would only be made on values assessed by the European Commission, which were likely to be very much less than the sums actually paid out by MAFF. The EU's final contribution to the compensation scheme would thus end up as much less than its theoretical liability of 17 percent.

In face of all these demands for a full-blown inquiry into every aspect of its handling of the crisis, the response from the British government was still deafening silence. Then on 9 August out of the blue came the announcement everyone had been waiting for. First there was to be no inquiry. Now, like London buses, along came three at once. And it soon became obvious that, in the way they were organised, Mr Blair was again attempting to pull off a very clever trick indeed.

The 'government aid' fiasco

■ WHEN the government announced its rural business recovery scheme for small firms brought to their knees by the knock-on effects of FMD, two West Country food producers applied to the south-west regional development agency for grants.

Sausage-maker Neil Robyns and cheese-maker Lawrence Wright were both promised help — until officials looked at the small print of the EU rules governing compensation. Mr Robyns' and Mr Wright's mistake was that their sausages and cheese came from their own pigs and sheep. If they had bought in their raw materials from elsewhere, they would qualify for aid. But because they reared their own animals, under EU rules they were classified as "primary agriculture". Aid to help their businesses survive would therefore be illegal.

While rural affairs minister Lord Whitty and "rural recovery co-ordinator" Lord Haskins were rhapsodising in August about the need for farmers to diversify, "go organic", go for "top-quality, added-value products" and sell through local markets, it would have been hard

to find more shining examples than these two businesses.

Mr Wright had for 30 years been an architect until, in 1992, he returned to a north Devon farm near Ilfracombe he had last seen in his childhood after the war, to make a superb organic cheese from the milk of his flock of 180 ewes. Neil Robyns and his wife Claire were both nurses until they set up a business making high-quality rare breed sausages and bacon near Launceston in Cornwall, from their own pigs, including traditional Gloucester Old Spots and Saddlebacks.

Both firms had been growing fast, selling by mail order and through local markets, until they were laid low by the FMD crisis. Mr Wright, surrounded by infected farms, could not take his cheese to market for months. Because Mr Robyns could not take his pigs 55 miles to a Truro abattoir, the animals, still inside because of the winter, continued to increase in numbers until a floor collapsed, killing 60 pigs and causing thousands of pounds-worth of damage to the building. With the aid of the RSPCA he had done everything he could to alleviate the animals' discomfort. But he refused to take money for them to be incinerated under the ministry welfare scheme, because it would destroy the stock on which the future of his business depended and would be obscenely wasteful.

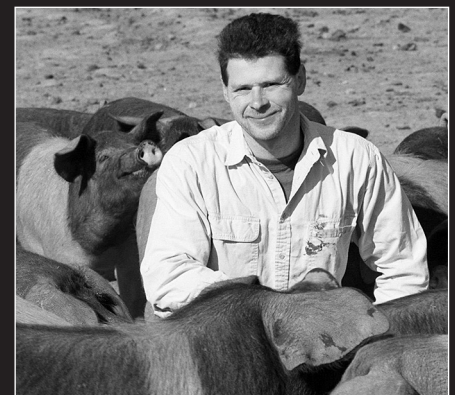
After supplying business plans, both men were told by their regional development agency, through its Business Link, that they were eligible. In Mr Robyns' case, help had become vital because the unavoidable costs of his business, which employed two people, had run up debts of £20,000. Mr Robyns was promised £12,500 and Mr Wright £2,500. For Mr Robyns and his family, including five small children who had had to be kept away from school for fear of bringing FMD back home, it seemed a six-month nightmare was coming to an end. With the lifting of restrictions, business

had once again been booming. The only problem was a backlog of debt which, thanks to insistent creditors such as the local council demanding business rates, was still threatening to close them down at any time. But here in the nick of time was just the lifeline they needed.

Then in September, the officials discovered that, because their products came from their own animals, this classified them as "farmers", disqualifying them from aid under the EU rules. When Mr Robyns's pig pens had been damaged by the overcrowding, he remembered he had taken out a special insurance policy allowing him to claim for "interruption to his business". But the company said he did not qualify because, under the small print, claims could not be made when this was due to "government legislation". For insurance purposes, therefore, the damage Mr and Mrs Robyns had suffered was classified as the responsibility of government. But when they applied to the government for emergency aid, first they were promised help. Then the officials found a tortuous excuse to withdraw it; leaving them in a more desperate plight than ever.



Lawrence Wright



Neil Robyns

Stage Nine: The Great Inquiry Farce

AS ONE of the greatest social and financial disasters ever to fall on peacetime Britain, it was hardly surprising that for months there had been calls for a full public inquiry into every aspect of how the government had handled the great foot-and-mouth crisis of 2001. Perhaps equally unsurprisingly, the methods finally chosen by Mr Blair to allay that clamour aroused as much suspicion as his earlier refusal to promise one.

Ultimately the only issue which mattered was whether such an inquiry would be genuinely free to investigate all the bewildering array of political, scientific and legal questions thrown up by the government's response to the crisis since it began in February. On the basis of what Mr Blair came up with on 9 August, it was clear the answer to that question was likely to be "no".

For a start, instead of the single, all-embracing inquiry, chaired by a genuinely independent figure, which so many representative bodies and the media had been asking for, Mr Blair and his advisers devised the idea of splitting the main government inquiry into three parts. The remit for these seemed carefully designed to allow many of the most fundamental questions to slip unanswered down the cracks between them. Furthermore, none was to be an open, public inquiry. Hearings were to be in secret.

Equally revealing was the background of the three men picked to chair these investigations. Media attention initially focused on the choice of Sir Donald Curry to lead a commission into the future of British farming. This was because, as a former chairman of the Meat and Livestock Commission, representing the large commercial interests at the top of the meat industry, Sir Donald might have seemed rather too obviously to represent just one powerful producer interest group.

This was particularly relevant since the vast majority of farmers whose future seemed most directly threatened by the crisis had been small livestock producers, to whose value and survival the prevailing mindset in MAFF, the NFU and the corporate farming sector had long since been opposed. With the aid of Lord Haskins, the multi-millionaire supplier of processed food to the big supermarket chains, simultaneously appointed by Tony Blair to advise on the future of British farming as his "rural recovery coordinator", it seemed hardly likely the consensus would be to find ways of helping such small farmers to survive.

Mr Blair's other two choices were even more revealing. A second inquiry, into the government's administrative handling of the crisis, was given to Dr Iain Anderson, a deputy-chairman of British Telecom. Its support staff would be provided by Mr Blair's highly-politicised cabinet office.

Anderson himself had formerly served as a special adviser to Mr Blair at 10 Downing Street on the "millennium bug" problem. Before the 1997 election he had worked for the Labour party as chairman of an inquiry into the role of information technology in schools, which played a key part in "new" Labour's bid to build itself a new, "modernising" image.

Considering that in March the prime minister himself had so ostentatiously taken over political direction of the crisis, it was hardly likely one of his own associates would come up with anything too critical of its overall handling, unless blame could somehow be put on the previous administration (eg for the reduction in the number of vets employed by MAFF); on the institutional culture of MAFF; or on farmers themselves.

The arrangements made for the conduct of the third inquiry were most curious of all. This was given to the Royal Society, under the chairmanship of Sir Brian Follett, with the general, anodyne brief that it should look into the future handling of animal diseases across the board. Carefully avoided was any particular focus on the highly controversial scientific aspects of how this particular epidemic had been tackled.

What made this inquiry so open to suspicion was the network of contacts intimately linking it to the little group of scientists who had been at the centre of the crisis since March, and who had been personally responsible for some of the most questionable aspects of the way it was handled.

The Royal Society's president was Sir Robert May, the former government chief scientist, who had played a key part in recommending another fellow of the society (FRS), Prof David King, to succeed him as chief scientist, and who had then stepped in to become Mr Blair's chief adviser on the crisis. Another FRS was Sir John Krebs of the Food Standards Agency, who played a key part in having his former Oxford colleague Prof Roy Anderson FRS put in charge of the government's policy

for controlling the epidemic. Prof Anderson had co-authored two books with Sir Robert May.

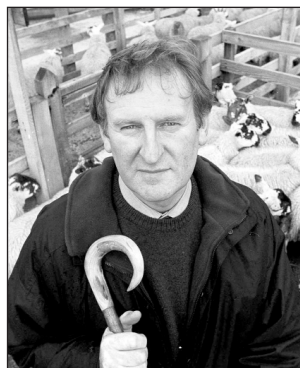
The other close link between several of these men was the Department of Zoology at Oxford University, where Krebs and Anderson had been professors with May and where Krebs and May continue to work part-time to this day. When Follett's appointment as chairman of the inquiry was announced by No 10 Downing Street, the official press release omitted to mention that he also is now a visiting professor at the Oxford zoology department. And when the membership of Follett's committee was announced, yet further links emerged.

Also on his 15-member team were Dr Angela Maclean, another member of the Oxford zoology department; Ms Suzi Leather, who serves with Prof Krebs as his deputy chair of the Food Standards Agency; and Prof Patrick Bateson, another colleague of Anderson, Krebs and King as the Royal Society's biological secretary.

True, another committee member, whose inclusion might have seemed surprising, was Prof Fred Brown, the world authority on FMD working in America, whose advice in favour of vaccination had been so signally ignored during the crisis. But the Follett committee's chief remit was to make recommendations for the handling of future epidemics of animal disease. It was already known that the European Commission intended to reconsider its general ban on vaccination against FMD, once the present crisis

was over. It might be advantageous if the report could use Prof Brown's authority to suggest a fresh approach according with the way the commission was already thinking.

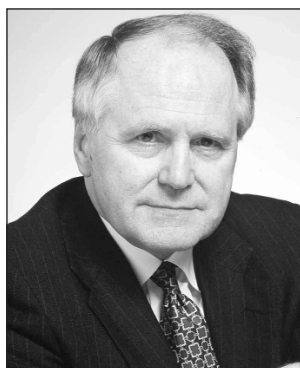
The important thing was that the Royal Society's remit would enable it to avoid dwelling too closely on the methods chosen to respond to this particular epidemic by two of its own leading members, professors Anderson and King, by concentrating attention on the handling of epidemics in the future.



Sir Don Curry: The future of farming



Sir Brian Follett: The 'scientific inquiry'



Dr Iain Anderson: The political handling of the crisis

What might also have seemed particularly perverse, or cleverly calculated, was the decision to hold separate inquiries into the scientific issues raised by the crisis and its political management, since the two were so interwoven they could not responsibly be considered separately. By splitting the two, many of the more obvious awkward questions could conveniently be sidestepped. The ingenuity of the way Mr Blair's three inquiries were organised can be seen by asking which of them might tackle some of the central questions arising from the crisis of 2001 which called for thorough investigation.

For instance, which of the three inquiries, if any, would regard it as its responsibility to carry out a proper investigation of the evidence that the epidemic might not have originated from imported meat fed to pigs at Heddon-on-the-Wall but might already have been unidentified in the sheep-flock weeks, possibly months earlier?

Which inquiry, if any, would report properly on why the government apparently ignored so many of the recommendations of the 1969 Northumberland report into Britain's last major foot-and-mouth outbreak? Would it be properly explained, as it never was officially at the time, that the real answer was that the legal framework for handling a foot-and-mouth epidemic had been completely transformed since

"competence" on FMD was handed to Brussels in the 1980s?

Which inquiry would see it as its job to report fully on the background to Mr Blair's decision in March to hand over control of the epidemic to two scientists, Professors King and Anderson, who had no veterinary expertise?

Which inquiry would carry out a rigorous assessment of the efficacy of the "contiguous cull" policy, under which millions of uninfected animals were destroyed? Could any of the inquiries be expected to consider whether it was in fact legal to order the killing of healthy animals in this way?

Which inquiry would give a proper answer to the question of why, when the epidemic appeared to meet all the criteria for an emergency vaccination programme laid out in EC directive 90/423, the European Commission ruled this out?

Which inquiry would explain why the farming community was so consistently misled, both by the government and the NFU, on both the science and the law on vaccination?

Would Dr Anderson's inquiry into the political handling of the crisis explain why in the run-up to the election the government so significantly changed its policy on the criteria for classifying outbreaks, in a way which seemed designed to support ministerial claims that the epidemic was under control?

Would Dr Anderson's inquiry seek to

ascertain why no official action was taken to prevent the wholesale breaches of animal welfare and "biosecurity" rules by government employees?

Would Dr Anderson's inquiry investigate why, as the crisis developed, was there such a conspicuous breakdown of trust between farmers and government vets and officials? Would it investigate why were there so many public and off-the-record briefings by ministers and civil servants laying blame for the spread of the disease on farmers?

Finally, would any of Mr Blair's inquiries attempt to give a full and honest answer to the most central question of all: why had the government's chosen strategy for responding to this crisis so signally failed in achieving its central declared objective, to restore Britain's export trade in meat and livestock, at such a disproportionate cost in terms of public expenditure, economic and social devastation, human misery, animal suffering and long-term damage to the countryside?

One has only to ask these questions to see that the one thing Mr Blair could not have afforded was a genuinely independent and open inquiry, based on public hearings, published evidence and unrestricted access to government papers. By only-too familiar methods he and his advisers therefore tried to ensure that they might be spared any such embarrassment by the three tightly constrained and secretive investigations they set up.

Conclusions

IN ESSENCE the central lesson of Britain's 2001 foot-and-mouth crisis was very simple.

The world's leading veterinary scientists are unanimous that there are only two effective strategies for ending a foot-and-mouth epidemic. One is a slaughter policy. The other is a combination of slaughter with vaccination.

But they attach a crucial condition to use of a policy based on slaughter alone. This can only be fully effective when the epidemic is identified in its early stages and when outbreaks are so focused that it is still possible to eradicate the virus by slaughtering all the animals infected. Once an epidemic has broken out into "stage three", where the infection has spread to many different places and become multi-specific, a slaughter policy becomes a sledgehammer increasingly likely to miss the nut.

At this point the only effective strategy, as has been proven in practice in almost every continent of the world, is a combination of vaccination with the judicious slaughter of animals worst affected.

The problem with Britain's 2001 epidemic was that it had already broken

out into "stage three" before it was officially identified. By early March, senior veterinary scientists outside the UK were all-but unanimous that it was too late for a policy based exclusively on slaughter to contain the spread of the disease. The only way to eradicate it was to use ring-vaccination round the outside of the areas where it had been identified, gradually working into the centre of each area.

If such a vaccination programme had been efficiently organised, experts like Prof Brown and Dr Barteling insisted, the epidemic could have been brought completely under control in a matter of weeks, and at minimal cost. At 50p a shot, with a further £4.50 for administration, the cost of vaccinating even 40 million of Britain's 60 million farm animals would have been £200 million. Under international trade rules, Britain could then have regained its "disease-free status" and restarted its export trade in meat and livestock 12 months after the vaccination programme ended, in April or May 2002.

The next problem was that a combination of two factors conspired to stop this happening. The first was the historical British prejudice against use of vaccination for foot-and-mouth. The

second was that the European Commission made clear that it would strongly oppose any widespread use of vaccination in Britain, because this might endanger the international trading status of the entire European Union.

There are still large potential export markets, as in North America and Japan, which prohibit imports of meat products from countries which use vaccination against FMD. And because the EU likes to consider itself as a single country for international trading purposes, if one member state used vaccination on a large scale this might affect the trading status of all the rest. In this respect, of course, an anomaly arose when Holland applied to Brussels to carry out a limited vaccination programme in April. So insistent on vaccinating were the Dutch that permission was granted, they were entirely successful in halting the epidemic and, having insisted on slaughtering the vaccinated animals, they recovered their full export status only four months later, in August. For some reason this was not considered to affect the trading status of the rest of the EU.

There was no greater irony to what happened in 2001 than that the chief

reason EU policy was so firmly set against vaccination was that this had originally come from a British initiative. It was Britain which in 1990 had persuaded the rest of the European Community to accept its opposition to vaccination, after 30 years when the routine use of vaccination on the continent had, in 27 years, reduced the number of cases of FMD from 100,000 to zero. But even though EC directive 90/423 then prohibited the use of vaccination as a routine measure, it still allowed for Brussels to permit vaccination in an emergency, in precisely the sort of circumstances which arose in Britain in 2001.

It was under these provisions that the Dutch were allowed to vaccinate, and that Britain was given permission to carry out a very limited vaccination programme to protect cattle in Cumbria and Devon. Since this was the only use of vaccination the British government chose to apply for, all that was left to it was a strategy based solely on slaughter.

The next problem, as almost all leading veterinary scientists outside Britain were agreed, was that, because the epidemic had already broken out into "stage three" before it was identified, a mass-slaughter policy was at best going to be an extraordinarily crude instrument, involving the deaths of vast numbers of animals, and at worst would almost certainly not be fully effective.

Indeed it was precisely because of the in-built inadequacies of this policy that the UK decided on a strategy far more draconian than any country had practised before: not just to kill animals proved to be infected but to kill millions more, under the "contiguous cull", just because of the possibility that they *might* have been exposed to infection.

This was of course the policy which came particularly to be identified with Prof Anderson, based on the predictions of his computer model. It was significant that

even the British government's own senior scientific expert on foot-and-mouth, Dr Paul Kitching of Pirbright, was excoriating in his comments on the deficiencies of the Anderson model, which he claimed was not based on any proper grasp of veterinary science. As Dr Kitching caustically put it, it would of course be possible ultimately to eliminate the disease by killing every animal in the country. But in the meantime, although the contiguous cull strategy might produce an apparent decline in the number of outbreaks, in the end it might only help the disease to spread further.

The next problem made inevitable by reliance on a mass-slaughter strategy was that this was by definition likely to become such a vast and cumbersome operation it would prove beyond the resources of any government to manage it efficiently. Although the intervention of the army did produce a dramatic improvement in the organisation of slaughter-and-disposal operations in the worst-hit areas, the overall impression of MAFF's own handling of the crisis on the ground was often one of scarcely credible incompetence and inefficiency, imposing an intolerable strain on many of those directly involved. This in turn made inevitable the seeming callousness and brutality with which operations were so often conducted, towards both animals and members of the public, farmers, their families and others who became involved in what was happening.

A further inevitable corollary of the unmanageability of the government's chosen policy was the incredible weight of bureaucracy which the policy brought in its wake, tying up farmers in an endless labyrinth of paperwork, movement controls, licences, unanswered official telephones, uncaring officials and contradictory policy decisions, much of it incomprehensible and without any relation to practical realities.

If all this resulted inevitably from the fact that the government had chosen a strategy which was ultimately unworkable, it must be remembered that the sole, ultimate purpose of its strategy had been to eliminate the disease in such a way that Britain could recover its export trade as quickly as possible, and sooner than by any other means.

That export trade in meat and livestock was worth, according to the government's own figures, £570m a year. After seven months of effort, spending £2.5bn of public money on killing more than a eighth of all the livestock in Britain, almost certainly driving thousands of farmers out of business for ever, inflicting damage on large parts of the rural economy from which it would take years to recover, dealing a blow to Britain's wider economy which might end up costing £20bn, what had the government achieved? Despite the dramatic decline in the number of outbreaks, it was certainly not possible to say the disease had been eradicated. In large parts of the country it might well have gone underground, to become endemic, so that it might continue to reappear for years to come. And until there was proof that the disease had been completely eliminated, that £570m-a-year export trade would not be recovered (in August the government announced that, in the autumn and winter of 2001-2, it would be paying for a further two million "light lambs" bred for the export trade to be incinerated).

Under a full vaccination programme, costing a maximum of £200m, export status could have been recovered by the summer of 2002, and Britain's countryside could have returned to normal by the summer of 2001.

It is difficult not to conclude that the British government's handling of the 2001 foot-and-mouth crisis amounted to a case of maladministration for which it is hard to recall a precedent.

STOP PRESS: 'Carnage by Computer'

■ By the beginning of October, DEFRA's line was to make out that the epidemic was all but over, as confirmed outbreaks fell to nil (although in several parts of the country the slaughter continued). For farmers the new nightmare was DEFRA's ludicrously bureaucratic new system of "movement controls", making it well nigh impossible for many to move their animals at all, either to abattoirs (markets were still closed) or, still more seriously, to winter quarters.

As winter approached a major new welfare crisis loomed, as vast numbers of sheep and cattle were faced with the prospect of a massive food shortage. This was exacerbated by a growing backlog of cattle due for "rendering" (being reduced to powder) under the government's "over 30-month" scheme. Rendering plants had been kept fully busy destroying millions of healthy

animals under the contiguous cull scheme. But as summer grass came to an end, farmers would now have to provide winter food for their 30-month animals (£10 a week each), with no prospect of return.

The charade of Blair's three "pseudo-inquiries" was shown up when in October Devon county council staged an inquiry of its own, under Professor Ian Mercer. This heard five days of devastating evidence from farmers, vets, the local NFU and the RSPCA, on all the issues Blair's inquiries would try to sweep under the carpet: MAFF's total incompetence, wholesale cruelty to animals, the bullying of farmers and vets, and the "medieval barbarity" of the contiguous cull policy, described by one local vet, Wendy Vere, as "carnage by computer".

As criticism of the mishandling of the

crisis continued to grow, Professor Anderson and his team attempted damage limitation by publishing a paper in *Nature* (not peer-reviewed), suggesting that, if only their cull policy had been enforced more effectively, "a million animals and 400 farms" could have been saved. Because of this, they now claimed, the epidemic would last until spring 2002. They and Professor King also claimed, on *Channel 4 News*, that if there was ever another epidemic, vaccination would have to be "top of the agenda". But to have used it this time would only, for reasons not explained, have made things worse. The bizarre illogicality of this claim was a fitting epitaph for the whole insane catastrophe. Mr Blair had of course, by now lost interest since, post 11 September, he was too busy trying to re-organise the world.

Dramatis Personae

What is the final verdict on the main players in the crisis?

NICK BROWN

Britain's last minister of agriculture

Weak, lacking sympathy for agriculture, totally out of his depth in the early days of the crisis and completely sidelined after 22 March by the King-Anderson coup. His last significant contribution was to pull the rug from under Tony Blair's limited vaccination plan on 23 April, for which he was humiliated after the election by demotion to the junior post of "minister for work".

JIM SCUDAMORE

Government chief vet

Apparatchik, also out of his depth as he tried to operate new EU system for tackling FMD epidemics. His main role was to go to Brussels to report to fellow members of the EU's Standing Veterinary Committee and bring back orders for his boss. Like Brown, effectively sidelined when King and Anderson took over direction of policy in March.

PROF DAVID KING

Government chief scientist

Intelligent, but as a chemist also out of his depth with the science of an animal disease. He was right in seeing that MAFF was making a complete shambles of running the crisis and that something dramatic needed to be done. His mistake was to put all his faith in Anderson's computer model and not seek advice from experts specialising in FMD. Although publicly he continued to back mass-slaughter and oppose vaccination, private clues indicated that by September he was realising that he might not have acted altogether wisely.

PROF ROY ANDERSON

Highly ambitious computer modeller who saw in foot-and-mouth a chance to rebuild his career. A persuasive politician, he benefited from his friendship with Sir John Krebs in being able to sell his FMD "model" to such effect that, within a month of the start of the crisis, he had in effect become the government's chief mastermind. As leading proponent of the "contiguous cull", his reputation would ultimately stand or fall on whether it was successful. But at what cost?

BEN GILL

President of the National Farmers' Union

Presented as "leader" of Britain's farmers, like any president of the NFU (which only represents 30 percent of farmers), he was in effect a spokesman for agri-business and established orthodoxy, most notably a visceral prejudice against vaccination. Although in April he was presented as the most significant opponent of any vaccination policy, he was by now acting as a well-briefed frontman for Anderson's mass-slaughter/anti-vaccination ideology. When the crisis was at its height, clearly under intense strain, he admitted that at key moments he had burst into tears. The one shining exception to the otherwise lamentable performance put up

by the NFU throughout the crisis was that of its south-western division, led by its eloquent and courageous director Anthony Gibson, who was excoriatory about the contiguous cull and MAFF's incompetence in general, and came round to supporting vaccination.

TONY BLAIR Prime minister

The FMD crisis gave an accurate picture of Blair's character as prime minister. Weak, indecisive, primarily concerned with "image" but sensitive enough to pick up the political and emotional advantages of switching to a vaccination strategy. Having welcomed King's wish to take charge and promote Anderson to a central role, Blair was still open to stepping outside the official orthodoxy to want private briefings on the case for vaccination. But he did not have the intelligence or strength of character to follow through. Having first fallen back on his limited vaccination plan as a political expedient, he was outmanoeuvred. From then on all he had left was resort to the spin doctors and wishful thinking that things would somehow work out.

TIM YEO

Conservative agriculture spokesman

Although the government's incompetence at every stage should have provided the Tories with a series of wide open goals, it would be hard to justify Yeo's inclusion among leading players. The main role of Her Majesty's opposition throughout was to claim that whatever the government was doing was right, except that it should have done it earlier when the Tories first suggested it. Yeo was noticeably careful not to raise the role played by Brussels and EU legislation; and refused to take seriously the scientific case for vaccination.

Unsung heroes and heroines

A notable feature of the crisis was that it was the first major nationwide political drama in which a significant part was played by the internet. Within weeks a network had begun to evolve through which crucial information could be spread round the country much faster and more effectively than even two or three years previously. Certain dedicated people and groups played a key role in this. In March and April the publisher Peter Kindersley and his team did more than anyone to "raise consciousness" about vaccination through their website www.sheepdrove.com. The torch was taken up by Bill and Alicia Eykyns, who in April organised a visit to London by the two leading international champions of vaccination, Professor Brown and Dr Barteling, to appear at a press conference and attend a high-level meeting in the House of Lords; and in September they organised a repeat visit, to speak at a national conference of vets, farmers and others in Bristol, and also to 300 farmers and vets in Cumbria. An invaluable part in providing day-to-day coverage of the crisis, including statements from experts and a full summary of press reports, was played by Mary Critchley's www.warmwell.com. Thousands of beleaguered farmers and their families were also able to link up with what had become a nationwide "FMD community".

THE DEATH TOLL

As of 30 September, DEFRA's website showed the total number of premises on which animals had been or were due to be slaughtered at

9,503

The total number of animals slaughtered or identified for slaughter was

3,905,000

In addition, the total number of animals slaughtered under the welfare disposal scheme was

1,751,786

This brought the officially admitted total of animals killed to

5,656,786,

but this did not include calves, lambs and piglets estimated by the *Farmers' Weekly* at another

2,000,000

making the total number of animals killed around

7.7 million

OR

One eighth of all the farm animals in Britain



REVEALED IN THIS REPORT – the inside story of how the Blair government's handling of this crisis became a chapter of maladministration without parallel, involving:

- the illegal destruction of millions of healthy animals
- handing over direction of strategy to scientists without any expertise in animal diseases
- lawbreaking by government officials on an unprecedented scale
- the massaging of official figures to support Tony Blair's election plans

Had the government heeded advice from the world's top foot-and-mouth experts, the epidemic could have been halted within weeks, restoring the UK's export trade sooner, saving rural communities from despair and Britain's countryside from a financial, social and environmental disaster.



By Christopher Booker (with research by Dr Richard North)

Since the start of the 2001 foot-and-mouth epidemic **CHRISTOPHER BOOKER** has reported the crisis more extensively than any other journalist, in the *Sunday Telegraph*, *Private Eye* and the *Daily Mail*. His *Sunday Telegraph* column has covered the impact of politics and bureaucracy on Britain's farming industry and countryside since 1992.

DR RICHARD NORTH, an expert on the epidemiology of zoonotic and food-borne diseases, is research director of the Europe of Democracies and Diversities group in the European Parliament and has just published *The Death of British Agriculture* (Duckworths, £14.99)



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