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Meat and bone meal (MBM) from the EU is seen as a poison nowadays , as most countries have banned its import. The killing of healthy cows in a herd where one animal is found to be BSE positive is causing **increasing opposition, and is seen as inhuman and a waste of valuable protein.** Several animal welfare organisations use the Internet to protest against this measure which has been sold to the public to „restore public confidence in beef". It is often said that man suffers the most from what he fears the most. How else can one explain, for example, the Canadian and US bans on Brazillian beef products? BSE concerns are escalating worldwide. Also of concern is the UK´s recent admission that MBM exports of various types are not identifitable , making it difficult to trace potential shipments of contaminated feed. Eurostat data (1990-2000) indicate that UK exports of MBM averaged 20,000 tonnes in 1990-1996 (totalling 138,000 tonnes over the period) and 23,000 tonnes in the 1997- 2000 period-91,000 tonnes in total. These shipments from the UK compare to total EU exports of nearly 500,000 tonnes annually of MBM from 1997- 2000. **Where these exports used in cattle feed? And to where were they shipped? Nobody knows.** As the UK government acknowledges, it will be hard to trace the product. Shippers often are not very clear in specifying their final destinations, **such as India versus Indonesia**. Indonesia was a large recipient of EU shippments; however, UK data indicates that **large quantities (over half of total exports) moved to India**; a fact that the Indian government denies…

Europe admits it´s mad; 23 December 2000

This was the year Europe finally owned up to the mad cows in its midst. For years, scientists had been telling just about every European country that they had fed way too many British cattle to their herds to be as free of BSE as they claimed. Now that better surveillance has revealed dozens of unsuspected cases across the continent, the truth is starting to emerge.

Just how bad is it? We'll find out next year, when a massive and unprecedented biochemical campaign will begin in the European Union. Millions of slaughtered cows will be tested for BSE.

Why does this make Europeans winners? Their beef industry is devastated, consumers are panicking, and some are probably already infected with vCJD, the human form of BSE. But now, at least they can start to reverse the damage.

While their governments turned a blind eye to mad cow disease, Europeans happily ate ...

Risky rosbif; 13 December 2000

French beef is much more likely to be infected with BSE than British beef, according to Christl Donelly of Imperial College London.

She estimates that 52 cattle capable of passing the disease to humans will have been eaten in France during 2000. In Britain, she thinks the figure is between one and two.

There have been 1,200 reported cases of BSE-infected cattle in France since mid-1987. But Donelly thinks the true figure is much higher: "Under-reporting is highly significant. The steady rise in BSE incidence from 1987 to 1996, estimated on the assumption of complete reporting, is difficult to explain."

"I estimate that, since mid-1987, 7,300 French cattle were infected with BSE," she says. Donelly used the ages of France's reported mad cows to estimate what she thinks is the true size of the French BSE epidemic.

She estimates that around 100 BSE-infected animals will have been slaughtered for consumption in France during 2000. But only 52 of these cattle will have been sufficiently advanced with the disease to be infectious to humans.

In Britain, only young beef is eaten or imported. Donnelly says this is why the estimate for the number of infected cattle is much lower in the UK than in France.

More at: **Nature**, (vol 408, p787)

Tackling BSE; 5 December 2000

After a stormy late-night session in Brussels, European Union agriculture ministers have agreed new measures to fight the spread of mad cow disease.

All countries in the EU will incinerate any cow over 30 months old that has not tested negative for BSE. It will also ban nearly all animal remains in feed for all livestock. Both measures come in to force in January.

The dramatic decision to destroy any untested cow over 30 months old means, in practice, that all older cattle in the EU will be incinerated rather than eaten until well into 2001. This is because fast BSE testing is unlikely to be available in all abattoirs across the EU for at least another six months.

The impact will be immense, to judge from the experience of Britain. It banned the consumption of cattle over 30 months old in 1996, when BSE was linked to the human disease vCJD. **BSE is thought to become detectable, and infectious, at 30 months.**

Burning beef mountain

More than 4.6 million older British dairy cows have been slaughtered and rendered so far, leaving 613,000 tonnes of tallow and meat and bone meal. Britain only started incinerating the mountain of remains this year. It will take until 2004 to burn the backlog.
The rest of the EU could pile up a similar mountain before testing is available. The European Commission will pay 70 per cent of the costs. But Europe is still searching for sufficient incinerators. Most countries expect to use cement plants.
Countries that have not yet reported any cases of BSE want an exemption from the measures. They are thought to include Sweden, Finland and Austria. The Commission has promised to study "whether an exception is acceptable".
But scientists advising the Commission say privately that they want wide-ranging tests to determine the true incidence of BSE in all EU countries, before anyone is let off the hook.

Protein and fat

The second major measure adopted is a feed ban. Currently, all EU countries except the UK feed meat and bone meal (MBM) from slaughtered animals, including cattle, to pigs, chickens and fish. This will now be forbidden for six months, while experts determine whether contamination of cattle feed with MBM was responsible for spreading BSE.
It will be hard for farmers to replace MBM in feed, especially for pigs. The Commission is studying ways to boost Europe's production of high-protein legume plants, which is limited under international trade agreements.

> The fat in rendered animal remains will be even harder to replace, as plant oils do not contain the required fatty acids. Despite objections from Germany, the ministers decided pigs and chickens may still eat fat rendered from slaughtered animals.

Mad to deny it; Humble pie is on the menu for two more countries hit by BSE" ; 2 December 2000

Humble pie is on the menu for two more countries hit by BSE

After years of ignoring warnings that mad cows were probably lurking in their herds, Germany and Spain both admitted last week that they have found native-born cases of BSE. **The admissions came days after the European Union announced BSE tests across the continent to reveal the true extent of the epidemic.**

As New Scientist went to press, one cow in Spain's north-western region of Galicia had been diagnosed with BSE, and another was suspected. An abattoir in the German state of Schleswig-Holstein, which was voluntarily conducting BSE tests, discovered infection in one cow. And a cow exported from another German state, Saxony-Anhalt, showed symptoms of BSE after arriving in the Azores, part of Portugal.

> A report this year for the European Commission (New Scientist, 10 June, p 4) **records that Spain imported 4000 British cattle during the 1980s, and may still feed cattle remains to cows.**...

France gripped by fear of deaths from Mad Cow Disease; 9 November 2000

There is growing public concern that France could face an epidemic of the deadly brain-wasting disease variant Creutzfeldt Jacobs Disease (vCJD), the human form of BSE or Mad Cow Disease.

Two people have died of CJD in France—much less than the 80 fatalities in Britain but still the second highest in the world. So far this year more than 80 cases of BSE (Bovine Spongiform Encephalopathy) have been diagnosed, more than twice as many as the 31 cases last year. More worrying still the government admits there are 50,000 “mysterious deaths” in cattle every year.

In response to growing criticism, the government tightened safety checks and testing of cattle in June. But this failed to allay the fears of French families because of high profile reports of cheating by some cattle dealers and breeders.

Some of France's most popular supermarket chains, led by Carrefour, recently admitted that a tonne of BSE-infected meat had been sold to customers after it got through the safety checks at an abattoir. Around 10 makers of tripe and animal feed received offal and meat products from the same BSE-tainted herd. This week a father and son were arrested after trying to sell a BSE infected cow for slaughter.

In consequence, beef consumption has plummeted. The national restaurant chain *Buffalo Grill* withdrew beef on the bone from its menus and butchers and some other restaurants followed suit. Beef has been removed from kindergarden and school menus throughout Paris, Bordeaux, Toulouse, Caen and Cherbourg.

Abattoirs have registered a 30 to 50 percent drop in beef sales, while supermarkets say that sales are down by between 25-40 percent. Michel Prost, director of meat and livestock cooperatives' federation FNCBV, estimates beef sales were down by 15 percent in butchers' shops and prices for beef carcasses have fallen by at least 10 percent.

The government has attempted to reassure the public that it is combating the problem, but with little success.

Agriculture Minister Jean Glavany told the media that it was discussing the possibility of the total removal of the spinal column of cattle from the food chain with the food safety authority AFSSA, because it is believed to be the most infective tissue. It has also asked AFSSA to investigate the possible dangers presented by beef on the bone.

Gaullist President Jacques Chirac deepened the crisis facing the Socialist Party government of Lionel Jospin, when he demanded an immediate end to sales of meat and bone meal from the carcasses of cows for use as feed for poultry and pigs. Feed containing cow remains is already banned for use in cattle, but permitted for other species.

Public confidence in the government's reassurances was further undermined by the admission of Junior Health Minister Dominique Gillot, who admitted on November 7, “With the number of cases of mad cow disease increasing in France, it is very probable that we are going to see several dozen cases of Creutzfeldt-Jakob... We've got to be prepared for that.”

Gillot said that a third case of vCJD in a young man was "very probable". The number of people displaying symptoms of the disease was already on the rise, she said.

The economic consequences of the question mark now placed over France's beef industry are potentially disastrous. France is Europe's biggest beef exporter and led the campaign to bar British beef from Europe because of the risk from BSE. Now a ban on French beef has been imposed by Hungary and Poland, while Russia has stopped imports of cattle from western parts of France that are deemed most at risk from BSE.

Farmers have called for an aid package from the government to save them from bankruptcy, with the head of the FNSEA farmers' union, Luc Guyau, warning that, “We are on the edge of a precipice... Some farmers could be driven to suicide."

Cases of BSE have also been reported in Belgium, Denmark, Lichtenstein, Luxembourg, the Netherlands, Portugal, Switzerland and Ireland —with the latter three countries admitting to the highest incidence after Britain. In August this year an Italian man died of vCJD in a Rome hospital.

The human tragedy may be just beginning; 4 November 2000

Thousands could die in Britain from variant Creutzfeldt-Jakob disease, computer models predict.

Last week, the British government announced a multimillion pound compensation package for those who have already fallen victim to vCJD. A trust may also be set up to compensate future victims. But we still do not know how many people will ultimately be killed by the human form of BSE.

The number of vCJD victims has been steadily increasing (see Graph). Christl Donnelly and her colleagues at Oxford University have used those numbers to predict how many will succumb. They estimated various values for unknown variables, such as when cows with BSE become infectious and how long humans incubate the disease. **Then they plugged five million combinations of these variables into a computerised model, and checked which of the resulting epidemics fitted the numbers and ages** of victims so far.

How it all went so horribly wrong; 4 November 2000

The first thing you notice is a numbness and unexplained mood swings. Then come the hallucinations, staggering and pain. Eventually you lose your thoughts, sight, memory and personality. More than 80 people have already died this way from variant CJD, the brain disease that results from eating "mad cows". **To establish how such a tragedy could happen, the BSE inquiry spent two and a half years and £27 million on an unprecedented investigation into the actions of the British government and its scientific advisers during the unfolding crisis. Its findings, published last week, are stark. The government and scientists delayed or mismanaged key research. Ministers and officials used apparently reassuring scientific conclusions to claim unequivocally that British beef was safe. And there were failures in the way scientists and government departments passed information to the public and each other. Those failures make Britain's BSE agony a lesson for the world. Thousands may yet die. The disease, or another like it, could strike again anywhere, any time. And despite the inquiry's 16-volume report, mistakes like those that allowed BSE, and vCJD, to run amok are still being made.**

SCIENTISTS **must take part of the blame for delays and mistakes in tackling the largest food scare in modern British history, says the report of the BSE Inquiry, chaired by the senior judge Lord Phillips. Their generally uncritical acceptance that BSE could not spread to humans meant early reassurances were taken as gospel, the report states.**

This helped lull the public into accepting that beef was safe to eat, and blinded scientists to crucial warning signs as new data on BSE emerged.

It also bred complacency in British slaughterhouses, which for years undermined measures to prevent BSE-contaminated meat entering the food chain.

Contained in the 4000 pages are myriad lessons for governments and scientists the world over who are charged with protecting their citizens from unsafe food. The report provides a harrowing look at how science was mismanaged, misused, misinterpreted and miscommunicated to the general public.

British government warns variant CJD deaths may rise to 250,000 3 November 2000

The Blair government has warned that variant Creutzfeldt Jacobs Disease (vCJD), caused by eating beef infected with "mad cow disease" (BSE-Bovine Spongiform Encephalopathy) could claim as many as 250,000 lives. This is double the previous estimate of 136,000 possible deaths and means that the government is now working on a "worst case scenario" of one in every 250 people in Britain dying from the disease.

Variant CJD is a fatal brain wasting disease beginning typically with depressive-type symptoms, lack of coordination and unspecified pains, before progressing to complete helplessness, blindness and certain death. As yet there is no proven means of arresting the disease's progress, let alone curing it.

The revised estimate was made public just days after Judge Lord Phillips published the final report of the government-convened inquiry into BSE. After a two-year investigation, Phillips' report did not make any criticisms of the food industry, whose practices lie at the heart of the scandal, or of former government ministers, despite acknowledging their efforts to cover-up the crisis.

Phillips conclusion that no one could be held responsible for the worst food health disaster in Britain was not surprising. The incoming Labour government, which convened the Inquiry in 1997, intended it mainly as a means of defusing public anger over a crisis that had played a significant role in eroding support for the previous Conservative government.

The official BSE report was followed by the announcement that the Labour government would ensure a care and compensation package to the families of those who died. Agriculture Secretary Nick Brown, speaking on BBC TV's *Breakfast with Frost* programme, admitted that the number of people who will die from vCJD could grow "much, much larger". He summed up official indifference to the terrible fate that could befall many families by claiming the numbers were "just predictions", whilst taking the opportunity to promote the British beef industry. "I eat British beef, I know British beef is amongst the safest in the world," Brown stated.

Also speaking to the BBC, Professor John Collinge, of the BSE Advisory Committee, took issue with the "false optimism and wishful thinking, which has bedevilled", the BSE investigation "for too long." "We might be seeing an epidemic that involves hundreds of thousands of people. Let's hope that's not the case, but it's still possible", he said.

Putting the risks into context, microbiologist and leading CJD expert Dr Stephen Dealler said on average people in the UK had eaten 50 meals made from the tissue of an infected animal. "At the moment the number of cases of CJD we are seeing are doubling every year. If they double for a long time then the numbers are in millions, if they double for just a few years then the numbers are in thousands. At the moment it is very difficult to know," Dealler said. The Report from the official BSE Inquiry found that a cow could be infected with BSE by eating contaminated material the size of a peppercorn.

Government adviser Professor Roy Anderson said that news that a 74-year old man had died from vCJD last year—most known victims have been younger—necessitated a major re-evaluation of the possible scale of the crisis. Anderson's earlier computer predictions had forecast that up to 6,000 people had been infected between 1980 and 1996. That figure could now rise as high as 130,000 as there is concern that many elderly people with vCJD could have been wrongly diagnosed as suffering from Alzheimer's disease, which has similar symptoms.

Fears of a vCJD epidemic have also been heightened by news that a cluster pattern of cases may be occurring in a former South Yorkshire mining village. Accountant Sarah Roberts, 28, of Armthorpe, Doncaster, died in September only nine weeks after she was diagnosed with

vCJD. Her former neighbour and friend Matthew Parker, 19, who attended the same school, died of vCJD in 1997.

It has now been revealed that a third victim of vCJD, former RAF policeman Adrian Hodgkinson, 25, had made regular visits to Armthorpe to see his grandmother every weekend between 1972 and 1986. If a link is proven it would indicate that the three victims may have been infected by the same source. The CJD surveillance unit at Edinburgh University is exploring the possible link. If Doncaster does reveal a cluster it will be the second such grouping in Britain. Last month, a fifth person in the Leicestershire village of Queniborough died from suspected vCJD, following the deaths of four others who had lived there or had connections with the village.

Despite this, Prime Minister Blair continued to claim that the issue was one of "finding the balance between risk and public protection measures". This is a "cost-effective" approach, which argues that any regulatory measures that may interfere with profits are only justifiable when a certain death toll has been reached. This was the argument utilised by the Conservative government when BSE first emerged in order to reject intervention into the food industry on the grounds that the risk to public health was "minimal". So for example, when the government was working previously on a "central figure" of 6,000 deaths from vCJD it was not considered cost-effective to extend the ban on feeding cannibalised remains to livestock or introduce further safety measures, for fear of outraging major land and food interests. These had already reacted angrily to even banning the sale of beef on the bone, claiming it represented a serious threat to civil liberties.

Even now, faced with a mountain of evidence showing the link between BSE in cattle and vCJD in humans, there are those who still view the BSE crisis as a virtual conspiracy against the British beef industry. An editorial in the *Daily Telegraph* last week fulminated, “While it is still unclear whether 77 horrible vCJD deaths are connected with the BSE crisis, other disasters can be directly relate to the whole affair, chief among them the extremist ban of beef on the bone and the collapse of the British beef industry.”

It is a sign of how reluctant the government has been to enforce the necessary safety measures in the food industry that only now is it considering introducing a complete ban on feeding animal remains to other animals—a major factor in the rapid spread of BSE in cattle. As yet the current ban on feeding recycled meat and bone meal does not cover many animals including pigs, poultry and fish or the use of cows' blood in feed manufacture because blood was deemed free of the infective prions associated with BSE.

The Food Standards Agency (FSA) made the recommendation to extend the ban after scientists proved in laboratory tests that BSE could be transferred to sheep. Although there is yet no evidence of BSE infecting sheep in the field, there are concerns that it could be masked by scrapie, a disease that has similar symptoms and has been present in the national flock for 200 years without apparently proving any risk to humans. Many scientists believe that BSE originated as a mutation of scrapie after it crossed the species barrier between sheep and cows through the ingestion of cannibalised remains in feed or shared grazing land. An FSA spokesman said urgent screening was required to establish any risk, but this would take years to reach any conclusion. In the meantime, the Ministry of Agriculture is to draw up contingency plans for dealing with any future discovery of BSE in sheep, including a blanket ban on consumption and the slaughter of millions of animals.

The Blair government has warned that variant CJD death may rise to 250,000 lives; 3 November 2000

This is double the previous estimate of 136,000 possible deaths and means that the government is now working on a "worst case scenario" of one in every 250 people in Britain dying from the disease… The revised estimate was made public just days after Judge Lord Phillips published the final report of the government-convened inquiry into BSE. **After a two-year investigation, Phillips' report did not make any criticisms of the food industry, whose practices lie at the heart of the scandal, or of former government ministers, despite acknowledging their efforts to cover-up the crisis**. Phillips conclusion that no one could be held responsible for the worst food health disaster in Britain was not surprising. **The incoming Labour government, which convened the Inquiry in 1997, intended it mainly as a means of defusing public anger over a crisis that had played a significant role in eroding support for the previous Conservative government.**

The official BSE report was followed by the announcement that the Labour government would ensure a care and compensation package to the families of those who died. Agriculture Secretary Nick Brown, speaking on BBC TV's *Breakfast with Frost* programme, admitted that the number of people who will die from vCJD could grow "much, much larger". He summed up official indifference to the terrible fate that could befall many families by claiming the numbers were "just predictions", whilst taking the opportunity to promote the British beef industry. "**I eat British beef, I know British beef is amongst the safest in the world," Brown stated**. Also speaking to the BBC, **Professor John Collinge**, of the BSE Advisory Committee, took issue with the "false optimism and wishful thinking, which has bedevilled", the BSE investigation "for too long." "**We might be seeing an epidemic that involves hundreds of thousands of people. Let's hope that's not the case, but it's still possible**", he said.

Putting the risks into context, **microbiologist and leading CJD expert Dr Stephen Dealler** said on average people in the UK had eaten 50 meals made from the tissue of an infected animal. "**At the moment the number of cases of CJD we are seeing are doubling every year. If they double for a long time then the numbers are in millions, if they double for just a few years then the numbers are in thousands**. At the moment it is very difficult to know," Dealler said. The Report from the official BSE Inquiry found that a cow could be infected with BSE by eating contaminated material the size of a peppercorn.

Government adviser Professor Roy Anderson said that news that a 74-year old man had died from vCJD last year—most known victims have been younger—necessitated a major re-evaluation of the possible scale of the crisis. **Anderson's earlier computer predictions had forecast that up to 6,000 people had been infected between 1980 and 1996. That figure could now rise as high as 130,000 as there is concern that many elderly people with vCJD could have been wrongly diagnosed as suffering from Alzheimer's disease, which has similar symptoms…**

Despite this, **Prime Minister Blair continued** to claim that the issue was one of "finding the balance between risk and public protection measures". This is a "cost-effective" approach, which argues that any regulatory measures that may interfere with profits are only justifiable when a certain death toll has been reached. This was the argument utilised by the Conservative government when BSE first emerged in order to reject intervention into the food industry on the grounds that the risk to public health was "minimal". So for example, when the government was working previously on a "central figure" of 6,000 deaths from vCJD it was not considered cost-effective to extend the ban on feeding cannibalised remains to livestock or introduce further safety measures, for fear of outraging major land and food

interests. These had already reacted angrily to even banning the sale of beef on the bone, claiming it represented a serious threat to civil liberties.

Even now, faced with a mountain of **evidence showing the link between BSE in cattle and vCJD in humans,** there are those who still view the BSE crisis as a virtual conspiracy against the British beef industry. An editorial in the *Daily Telegraph* last week fulminated, "**While it is still unclear whether 77 horrible vCJD deaths are connected with the BSE crisis, other disasters can be directly relate to the whole affai**r, chief among them the extremist ban of beef on the bone and the collapse of the British beef industry." It is a sign of how reluctant the government has been to enforce the necessary safety measures in the food industry that only now is it considering introducing a complete ban on feeding animal remains to other animals—a major factor in the rapid spread of BSE in cattle. As yet the current ban on feeding recycled meat and bone meal does not cover many animals including pigs, poultry and fish or the use of cows' blood in feed manufacture because blood was deemed free of the infective prions associated with BSE.

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Britain's official inquiry into BSE/Mad Cow Disease finds no one to blame; 31 October 2000

Over 80 people in Britain have already died from variant Creutzfeldt-Jakob Disease (vCJD), the fatal brain-wasting illness that comes from BSE (Bovine Spongiform Encephalopathy) or Mad Cow Disease in cattle, and the eventual toll could run into thousands.

BSE and vCJD represent a continuing danger to people in Britain and throughout the world. There have already been deaths from vCJD reported in France and Italy, while just days following its publication, two more deaths occurred in Britain.14-year-old Zoe Jeffries died on Saturday October 29 after being diagnosed with vCJD when she was 12. The same day, scientists from the National CJD Surveillance Unit in Edinburgh confirmed that a 74-year-old man who died last year also suffered from the brain disease. These two cases bring the total number of those diagnosed with Human BSE in the UK to 85, of whom 82 have died.

All previous known victims were aged between 12 and 55, and confirmation that a 74-year-old has been struck down by Human BSE could dramatically increase the total numbers who may eventually die from the disease. Government adviser Professor Roy Anderson told the press, "we are in the process of taking into account the rise of the numbers in the light of a considerably broader age range."

Yet the findings of the official Inquiry into BSE published on October 26 finds no one was to blame for the emergence of this crisis. The incoming Labour government in 1997 set up the Inquiry, headed by senior judge Lord Phillips, and its two-year investigation has cost £27m. The 16-volume, 4,000-page report he has produced does not make any criticisms of the food

industry, whose practices lie at the heart of the scandal. In answer to a question at the press conference launching his report, Lord Phillips said the meat industry had come out of the crisis “relatively unscathed”. He went on to describe the supermarket chains as a “force for good.”

Labour's Agriculture Minister Nick Brown presented parliament with the findings of the Inquiry, going out of his way to avoid any criticism of his Conservative predecessors, who were in office when the number of instances of BSE reached its peak. He quoted Lord Phillips' verbatim saying, “The Government did not lie to the public about BSE,” because when Ministers told the public that “beef is safe to eat”, they believed what they were saying.

The Conservative and Labour Parties have declared a mutual political amnesty, preferring to shift the blame onto those government scientists and civil servants who advised them.

They can do this only because Lord Phillips report is a whitewash. It contains some praise and only the mildest of criticism for those politicians and public servants whose actions and inactions are implicated in what is Britain's worst-ever food safety crisis. “We have concluded that, in general, our system of public administration has emerged with credit from the part of the BSE story that we have examined.” In the report itself, Lord Phillips writes, “any who have come to our report hoping to find villains and scapegoats should go away disappointed.”

Maintaining “confidence”

The real purpose of the Phillips Inquiry, and the thrust of its “lessons,” is to restore and maintain public confidence in the government, and especially its pronouncements on health and food safety.

The report is replete with references to “shortcomings”, “bureaucratic processes”, “breakdowns of communications”, “inadequate interdepartmental liaison”, “unacceptable delays”, “failures of communications,” “lack of urgency” etc. The one thing absent from the document is any concrete attribution of responsibility for the crisis.

Everything is explained as the result of “mistakes”, errors of judgement or bad advice. But all concerned are deemed to have had only the most honourable intentions: “The Government was preoccupied with preventing an alarmist over-reaction to BSE because it believed that the risk [to humans] was remote. It is now clear that this campaign of reassurance was a mistake. When on 20 March 1996 the Government announced that BSE had probably been transmitted to humans, the public felt that they had been betrayed. Confidence in government pronouncements about risk was a further casualty of BSE.”

According to Lord Phillips, BSE and its human equivalent were completely unforeseeable and unpreventable. Like some terrible natural disaster, the BSE/CJD crisis was without culprits, it “just happened”. And yet, buried in the thousands of pages is evidence that compels a completely different verdict to be reached.

From the very start, government policy was directed towards preserving “confidence” in the British beef industry. The report acknowledges, for example, that, “Events after March 1987 demonstrated a policy of restricting dissemination of information about BSE. The principal reason for this was concern about 'the possible effect on exports and the political implications' should news get out that a possible TSE [Transmissible Spongiform Encephalopathy] in cattle had been discovered in Britain.”

Whatever Ministers did or did not know about the risks to human health, their major policy consideration was to protect the UK agribusiness, as Lord Phillips is forced to acknowledge. His report notes that in 1986, “output of milk, fattened cattle and calves (at 1990 prices) was worth £5,134 million, contributing 60 per cent of the total value of livestock products in the UK and 37.5 per cent of the UK's total agricultural output. In 1995 [after BSE] output of these products had declined to £4,681 million (at 1990 prices), contributing 53 per cent of the total value of livestock products and 33 per cent of the value of total agricultural output.”

The report finds that BSE developed into an epidemic as a consequence of what it calls “intensive farming practice—the recycling of animal protein in ruminant feed.” Phillips concludes, however, that since the use of such feed, in the form of “Meat and Bone Meal” (MBM) produced in the rendering process, had occurred since at least the 1940s, nothing could have prevented the emergence of BSE. Since the active disease agent—the prion protein—was largely unaffected by the rendering process.

But within the mass of data contained in the report can be found the economic considerations that encouraged cattle and dairy farmers to vastly increase the amount of MBM they gave their cows: “The emphasis on increasing milk production led to the use of MBM in place of some of the cheaper vegetable proteins, which had been the main protein source up until then. From about 1982 the least cost formulation of rations manufactured for dairy cows recommended the inclusion of substantial amounts of MBM,” the reports states.

A single firm, Prosper De Mulder (PDM), which processed around 64 per cent of red meat waste in England and Wales and 80 per cent of poultry waste, dominates the UK rendering industry. In Scotland, William Forrest and Son (Paisley) Ltd had about 71 per cent of the red meat waste supply. The feed producers (where a near monopoly also operates) would mix the MBM with other ingredients to make the compound feeds sold to farmers. In this industry as well, the emphasis is on maximum profit for the lowest outlay.

When the role of contaminated MBM became clear in spreading the BSE agent, the government eventually banned its use in ruminant feeds. However, as the report notes, “the Government gave the animal feed trade a 'period of grace' of some five weeks to clear existing stocks of feed before the ban took effect. Some members of the feed trade continued to clear stocks after the ban came into force. Farmers in their turn used up the stocks that they had purchased. This led to thousands of animals being infected after the ruminant feed ban came into force on 18 July 1988,” says the report. It does not single out any of the renderers or the feed compounders for penalty or sanction.

Just as Lord Phillips ignores the economic imperatives that have facilitated the BSE crisis, so he downplays the political context in which it occurred. Successive Conservative governments since that of Margaret Thatcher in 1979 had made swingeing cuts in state spending and freed industry, including agriculture, from state regulation. This free-market ethos was extended to science, with universities and research institutions expected to look to “market forces” to provide them with an increasing proportion of their budgets. As a result, between 1979 and 1997, the number of scientists engaged in research into agriculture and food was slashed from 3,417 to 2,003. And yet Lord Phillips writes, “After some initial delay, BSE research was adequately funded by the Government.

In truth, far more money was expended in compensation schemes for destroying cattle than on research into both BSE and its human variant. Up until the most recent period, victims of vCJD and their families did not receive a penny in compensation.

It is a matter of public record that Conservative Ministers queued up to tell the public that beef was safe to eat. This reached the obscene spectacle of Agriculture Minister John Gummer virtually forcing his own daughter to eat a burger in front of the press, to “prove” there was no problem with beef. The measures that were introduced were usually subjected to months of delays as various committees, both of government scientists, civil servants and politicians, mulled over the fine print.

Yet the report generally praises the government for going further than its advisers suggested, such as in the case of the Specified Bovine Offal ban imposed in June 1989. This prevented certain parts of the cow believed to harbour the most infectivity—brain, spinal cord, spleen, thymus, tonsils and intestines—from being used in human food.

The report's one criticism is that during the consultation process, concerns were raised about the practicality of ensuring the removal of all of the spinal cord during the abattoir processes.

Officials from the Ministry of Agriculture, Fisheries and Food (MAFF) discounted these concerns without subjecting them to rigorous consideration, the report complains, “in particular no advice was sought as to the minimum quantity of spinal cord that might transmit the disease in food.”

The report confirms, “a cow can become infected with BSE as a result of eating an amount of infectious tissue as small as a peppercorn.”

The greatest danger of such scraps entering the human food chain, moreover, comes from the practice of mechanically recovered meat or MRM, where high pressure water hoses are used to clean carcasses and the slurry is then used in cheap burgers, pies, sausages and ready-made meals. It was not until 1995 that action was finally taken in relation to MRM.

Neither can the politicians be excused on the basis that they were merely badly advised. For they chose which advice to accept and which to reject. From the very early days of the BSE crisis, there were several high-profile scientists who publicly voiced their concerns about the emergence of this new disease and its implications for human health. Professor Richard Lacey, a leading microbiologist, was subjected to defamation and personal attacks by the media, farmers, the food industry and politicians. Dr Harash Narang, who had worked to develop a urine test for BSE, was subject to intimidation and his dismissal engineered.

A cover-up continued by Labour

Labour set up the Phillips Inquiry in such a way to ensure it would not uncover the truth about BSE. The Inquiry had no powers to subpoena witnesses or demand the production of documents.

Lord Phillips controlled all the questioning of witnesses, effectively muzzling those acting for the families of Human BSE victims from cross-examining them. At the very outset, Phillips stressed that his Inquiry “is not to attribute blame for what occurred but to identify what went wrong and why, and to see what lessons can be learnt.”

Its terms of reference limited its investigation from the outbreak of BSE to the announcement on March 20, 1996 when Tory Health Minister Stephen Dorrell admitted to parliament that there was a link between BSE in cattle and vCJD in humans. Thus it would not cover any of the measures Labour introduced since winning the general election in May 1997. In office, Labour ensured the Meat and Livestock Commission launched a multi-million pound advertising campaign to encourage the consumption of British beef, which was declared “the safest in the world,” and was reintroduced into school meals.

MAFF was clearly implicated in the scandal from the start and acted with an almost knee-jerk response to protect the interests of the powerful agribusiness lobby. Yet Lord Phillips' claims it did not “lean in favour of the agricultural producers to the detriment of the consumer.” However, to try and show it was taking “consumer interest” seriously, Labour has set up the largely toothless “Food Standards Agency”.

The Blair government has also promised special aid to assist the care of those suffering from Human BSE and payments of compensation to the families of those who have lost their loved ones to vCJD. However, this offer is made while simultaneously seeking to ensure that the families drop any legal proceedings that may not only have awarded higher payments but possibly penalised those responsible. No corporation, civil servant or government officials face any penalties as a result of the BSE Inquiry.

The Phillips report, despite the wealth of empirical evidence it contains, thus continues the cover-up that began as soon as BSE emerged.

Workers Inquiry vindicated

In May 1997, the Socialist Equality Party in Britain convened a Workers Inquiry into the BSE/CJD crisis. It was the first independent investigation into this public health disaster, and brought together all aspects of the crisis. Six Commissioners, who presented their findings in

July the same year, heard testimony from scientific experts, health and environmental professionals, as well as the relatives of those who had died, or were dying, from vCJD.
The central conclusions of the Commissioners' findings were:
1. The cause of vCJD is eating beef and beef-derived products from BSE infected cattle.
2. The BSE/CJD crisis was both foreseeable and preventable. Its source is the production of food for profit.
3. The Tory government, civil service, handpicked advisory bodies and the press covered up the crisis and enabled the disease to spread. The methods of the cover-up included intimidating critics and whipping up nationalism.
4. The Labour Party and the trade unions were complicit in the cover-up and are continuing it now Labour is in government.
5. The capitalist politicians' refusal to take the necessary emergency action means that many more lives are in danger, via both infected meat and the environment.
6. This indifference to public health is part of a broader policy in which all social concerns are subordinated to the dictates of the market.
With considerably less resources than were available to Lord Phillips and his team, the Workers Inquiry convened by the Socialist Equality Party was able to rapidly establish the cause of the BSE crisis and point to those responsible. It was able to do this because it was informed by a critical attitude to the present social order.
“The BSE/vCJD crisis did not simply result from the corruption and hypocrisy of a few government ministers and civil servants. Their actions and inactions were determined by their defence of an economic system, which subordinates every aspect of human life to the drive for profits. The cover-up begun by the Tory government, and Labour's collusion with it, reveal how Parliament and the establishment parties are the political means through which this economic set-up is preserved.” (From: “ *Human BSE* —Anatomy of a health disaster: Record of the Workers Inquiry” http://www.socialequality.org.uk/bse-o23.shtml)
The findings of the Workers Inquiry have been vindicated once again by the failure of the Phillips inquiry to seriously address the wider social issues raised by the BSE/vCJD, or propose any genuine measures to combat the spread of this lethal disease.

France may be on the verge of its own BSE catastrophe; 28 October 2000

France may be on the verge of its own BSE catastrophe

THIS week, Britain's official inquiry into the BSE epidemic releases its verdict. But as Britain analyses its mistakes, France may be repeating them.

While there has been a dramatic increase in French BSE cases reported this year, tests on cattle show the true number may be far higher. Meanwhile, up to five people in France have already succumbed to vCJD, the human form of BSE.

So far this year, France has had 48 confirmed cases of mad cow disease. But last year the European Union told member states to test for BSE in cattle not visibly ill with the disease, to see how much unsuspected infection might be circulating.

France has started testing high-risk cattle found dead or destroyed for other reasons. "Because of the low number of clinical cases, they expected to find only one or two infected in 40,000 tests," says Markus Moser of Prionics, the Zurich-based company ...

BSE fiasco: 26 October 2000

Government failures may have exacerbated the British mad cow disease epidemic but it could not have been avoided, believes the chairman of the BSE inquiry, whose report was published on Thursday.

The human form of the disease has killed 80 people. In addition, millions of cattle have been slaughtered, costing the UK billions of pounds.

The £27 million report says government departments failed badly on two counts. Firstly, for many years they did not make public fears about the potential danger BSE posed to human health - concerns of an economically damaging public over-reaction took precedence. The report says "this campaign of reassurance was a mistake". When the government did announce a likely link between illness in cattle and human in 1996, "the public felt they had been betrayed".

Secondly, they failed to coordinate and direct scientific research into the emergence and spread of the disease. But "the government did not lie to the public," the report concludes. Individual politicians, civil servants and scientists largely escaped scathing criticism.

But avoiding the epidemic at all would not have been possible, according to Lord Phillips. He told a press conference that the long incubation period of BSE meant that thousands of cattle were already infected and being used for food by the time the first case was identified in 1985. "Other countries should ponder on our experience," he said.

The report identifies two key breakdowns in the co-ordination of scientific research and the communication between government departments which meant BSE was not contained as quickly as it should have been.

First was the failure to realise that only a "peppercorn-sized" piece of infectious material might transmit the disease from cow to cow. As a result, measures to prevent the spread were not enforced rigorously enough.

The second, related breakdown was the failure to fully implement the ban on particular infectious cattle parts being used in human food. Lord Philips said the specified bovine offal ban had been "fairly widely disregarded".

The Ministry of Agriculture, Fisheries and Food, which at the time had a dual role in protecting food safety and regulating farming, did not receive the severe criticism which many commentators had expected. The report says: "It was not MAFF's policy to lean in favour of agricultural producers to the detriment of the consumer."

MAFF was criticised for a six month delay in releasing scientific information that considered a link between BSE and the similar sheep disease scrapie. This probably delayed research that could have limited the extent of the epidemic.

Compensation for victims

The report, which runs to 4000 pages, was welcomed by all parties in Parliament, in particular by the former Prime Minister John Major, who described it as balanced. Lord Philips rejected suggestions that the report was a "whitewash" or had "pulled its punches".
Presenting the report, the Agriculture Minister, Nick Brown, said that the government would put in place measures to ensure that the proper care of the victims of vCJD and compensation

for their families would be implemented quickly. He also said an independent person would review whether disciplinary action is needed against any public servants still in office.
The report said there was no certainty about how the disease entered the cattle herd, nor why it predominantly affected only Britain. The minister said that in light of this he would commission "an independent assessment of current scientific understanding on the origins of the BSE epidemic".

Mutated protein

The report does confirm, however, that the BSE epidemic was caused by the feeding of animal protein to cattle. It says BSE is probably a new prion disease which originated in the 1970s as a consequence of a gene mutation in a cow or other animal. It says changes in the way carcasses are rendered had no effect, as rendering can never completely deactivate the infectious BSE agent.
The organisation of scientific research into BSE has been criticised in the past for not allocating the work to the labs best qualified to do it, and for not making clinical samples available to all researchers. The report suggests a research "supremo", overseeing all the work could have avoided these problems.
John Krebs, chairman of the new Food Standards Agency, has advised the government that no new food safety measures are immediately needed in the light of the report. Krebs added: "The inquiry has highlighted how secrecy, and the reluctance to trust the public, dogged efforts to tackle BSE. The Agency pledges that never again will vital information on food safety risks be withheld from the public."

BSE inquiry delivers report as scientists raise fresh concerns about "mad cow disease"; 3 October 2000

The inquiry into the BSE (Bovine Spongiform Encephalopathy) crisis set up by Labour shortly after coming to office in 1997 sent its final report back to the government yesterday. It covers the period from the first recognised outbreak of “mad cow disease” in the mid-1980s up to March 20 1996—when the previous Tory government first admitted a direct link between BSE in cattle and a new variation of Creutzfeldt-Jakob disease (vCJD), the brain-wasting disorder in humans.
The 16-volume report took two years to compile and includes evidence and testimony from more than 1,000 witnesses, including the families of Human BSE victims. It is believed that the report, which will be made public later in October, concludes that former ministers and officials should have acted with a “greater sense of urgency”. An official quoted in the *Daily Telegraph* expressed the real thinking in government and civil service circles, “If you were being darkly cynical, you could say the wait-and-see policy over BSE was a qualified success. The dead still number under three figures—a bit of a narrow squeak, admittedly, but hardly the calamity it might have been”.
Last month, scientists raised new concerns about vCJD. Seventy-five people have already died in Britain and another seven people are dying from the illness, probably caused by eating beef infected with BSE. On Thursday last week, a fifth person died of suspected vCJD in a small area of Leicestershire. The Leicestershire CJD "cluster" was first reported in November 1998, after it claimed three lives within 12 weeks.
Instances of BSE in Britain still far outstrip those anywhere else. There have been more than 177,000 cases, with nearly 780 confirmed so far this year. By contrast, Ireland has had a total of 489 BSE cases, Portugal nearly 350 and Switzerland 365. But BSE could be on the increase in France. The recent discovery of an infected cow in the Rhone region brings the

total number of cases this year to over 40, up from 31 in 1999. Unlike Britain, French policy is to slaughter the entire herd whenever a proven case of BSE is discovered. There have been two cases of human BSE in France, and one in Ireland and Italy.

Originally, it was thought that the infectious BSE agent (a prion protein) was contained only in certain tissues such as the spinal cord, brain and other organs. New research suggests that blood may also carry the disease and that it can transfer between different species more easily than previously thought.

Scientists at the Institute of Animal Health in England have shown that BSE-free sheep developed the disease after being injected with blood from infected sheep. Their report warns, "Blood donated by symptom-free vCJD-infected humans may represent a risk of vCJD infection among humans." It has been discovered that seven people who have died from vCJD were blood donors whilst they were incubating the disease.

Earlier this year a baby girl suffering brain damage and growing at half the normal rate lost her mother who suffered from vCJD, suggesting transmission by blood was the cause. Eight cows have contracted BSE from the continued use of blood in animal feed.

The Australian government has followed the United States by banning the use of blood from travellers from the UK. Last year the Labour government ordered hospitals to remove all white cells from blood donated in Britain. It said the risk was only theoretical and there was no evidence that vCJD had "ever been transmitted to humans through blood transfusion or blood products". However, because there have been years of denials—from the claim that cows were a "dead-end host" for BSE which could not cross over to humans, to claims that only nervous tissue was infective—there have been few experiments to look for wider evidence, such as in blood.

Last year the Department of Health issued guidelines to all health professionals including dentists for the "thorough cleaning and sterilisation" of equipment, but the prion protein that causes the disease is virtually indestructible. Only now is the government considering the wider use of disposable surgical instruments currently restricted to tonsil, appendix and brain operations.

That these measures are insufficient is suggested by new research showing the procedure to remove white blood cells is imperfect and red blood cells could also transmit the disease.

Other evidence has emerged from Professor John Collinge's team at St Mary's Hospital in London. Whilst it is known that animals may be infected with BSE do not show symptoms for years, Collinge believes that animal species can act as silent carriers without ever showing symptoms. He said, "We should not assume that just because one species appears resistant to a strain of prions that they do not silently carry the infection." It could be the reason why only one or two cows in a herd die; the others might have a silent form of the disease. Collinge said there could be a silent form in humans too and suggested "current definitions of the species barrier... need to be fundamentally reassessed". The team's new findings imply there are silent forms of BSE in sheep, pigs, chickens and other animals used for human consumption. According to the Ministry of Agriculture, "We believe the safeguards we have in place at the moment are adequate to deal with the issues Professor Collinge raises". The head of the new Food Safety Agency (FSA), Sir John Krebs, said no further reassurances were necessary.

Professor Stanley Prusiner, the discover of the prion form of protein, also believes that BSE occurs at low levels in sheep but it is masked by scrapie, a similar form of spongiform encephalopathy that has existed for hundreds of years without apparently affecting humans. Prusiner says "BSE prions in sheep may thus have been there all the time at very low levels that pose no significant risk to humans but unusual circumstances might have allowed them to spread either through the sheep or cattle populations and accumulate to levels hazardous to humans."

It is much more difficult to remove the potentially infected material in sheep than in cattle, casting doubts over the future of sheep farming in Britain. The government's response is to call for research into breeding BSE and scrapie-resistant sheep. Early in the BSE crisis Professor Richard Lacey, an expert in diseases like BSE, was hounded from his job for suggesting all livestock in Britain should be destroyed to eradicate the danger of the disease to humans.

Government policy, whether under the Conservatives or Labour, is directed to maintaining confidence in the British meat industry. It has asked the FSA to consider "at what point in the future it might be appropriate to relax the rules" surrounding the use of cattle and feedstuff.

Consequently, it is proposing to relax some of the existing controls, e.g. the use of intestines and thymuses from young calves. Cows' blood is still routinely used as a component of cattle feed.

When it comes to the families of those who have died from vCJD, the government has a different attitude. The *Guardian* newspaper reports that the government will fight any claims for compensation in the courts.

Renewed fears that BSE/Mad Cow Disease can pass from one generation to another; 12 July 2000

Britain's Agricultural Minister confirmed in parliament last month that a calf had been born with Bovine Spongiform Encephalopathy (BSE) or Mad Cow Disease. The animal was born after August 1, 1996, when extra control measures on animal feed containing mammalian meat and bone meal had been implemented, supposed to eradicate the incidence of BSE.

BSE is a degenerative brain disease in cattle, first recognised in the mid-1980s, caused by the infectious prion protein. The disease is thought to have resulted from the practice of feeding ruminant animals with the treated remains of slaughtered animals. It is responsible for the development of a new variant (vCJD) of the fatal brain-wasting disorder Creutzfeldt Jacob Disease.

Despite the potentially grave dangers posed to public health by his confirmation, Agriculture Minister Nick Brown went on to claim that "there is no risk to food safety as a result of this case". The newly-established Food Standards Agency (FSA) would also be issuing a statement to that effect later in the day, Brown said, adding that the FSA chairman had also stated that there was "no extra risk to food safety" posed by the recent case.

Brown's announcement continues a long-running cover-up over BSE and its impact on the human population, dating back to the Conservative administration of Margaret Thatcher. Ever since the emergence of BSE and its human equivalent, the main issue for successive British governments has been to protect the profits of the beef industry.

To this end, scientists like Professor Richard Lacey, who had warned of the dangers of eating BSE-contaminated beef and called for the destruction of England's national herd, were subjected to a campaign of vilification. BSE first became a notifiable disease in cattle in 1988 and in July of that year the ban on mammalian meat and bone meal was brought in. In 1992, nearly 37,000 cases of BSE were recorded in the UK, yet still the Conservative government denied any danger to human health.

Certain limited measures were introduced which undermined this claim, including a ban on the use of specified bovine offals in the human food chain. Later, the "30-month rule" was introduced, preventing the use of cattle over 30 months in human food. Even so, the regulations were ineffective and poorly enforced. The 30-month rule moreover meant that animals with the disease but not yet showing symptoms might still be entering the food chain.

Only when a number of young people began to exhibit symptoms similar to those of CJD normally found in older people, and several died as a result, was it accepted that BSE had

passed into the human food chain with fatal consequences. The number of fatalities has increased steadily, and to date a total of 58 mainly young people have died of the disease in the UK. The Edinburgh-based CJD surveillance unit says that another 12 cases have been identified. Many scientists have warned that the death toll might still not have peaked and that the final figure could be in the thousands.

When the Labour government came to power in May 1997 they had to tackle the widespread public concern in Britain and internationally that had caused a collapse in the British beef industry. To this end, Blair convened a public inquiry into BSE under Lord Justice Phillips. The inquiry has yet to report. However, Labour had stipulated that the inquiry would only consider matters up to March 1996, when the link between BSE and vCJD was first officially recognised, and that subsequent developments—including continued fears of the danger to public health—would not be examined.

The Blair government also announced the establishment of the FSA—a new agency supposedly answerable to the consumer and aimed at restoring public confidence in the food industry.

Brown's statement in parliament effectively exposed the FSA's role as a rubber stamp for the government and food industry. It also confirms that Labour intends to continue defending the agricultural industry at the expense of public health.

The Agriculture Minister gave two possible explanations for the occurrence: either the calf had caught the disease through maternal transmission, he said, or it had been fed contaminated cattle feed. The government had extended the ban on mammalian meat and bone meal in August 1996, making it illegal to hold supplies of it on farms or in feed mills.

In his statement, however, Brown also described maternal transmission as being only a “theoretical” possibility, despite well-documented evidence that scrapie, a prion disease found in sheep similar to BSE, can be passed from mother to offspring.

More troubling, in March this year it was announced that a 24-year-old woman with vCJD had given birth to a baby girl at the end of 1999. The mother died in May this year and her daughter has exhibited symptoms similar to people with vCJD.

Although declining in numbers, there continue to be instances of BSE in cattle, with 3,178 notified cases in 1998 and 2,254 in 1999. Maternal transmission in cows would mean that the disease could be endemic in the cattle population, even if at a low level.

Professor John Collinge, an expert on CJD at the Medical Research Council in London, was quoted in a *Sunday Times* article saying, “It was something that was always on the cards. In sheep scrapie, a similar prion disease, the disease passes from ewes to their lambs. There is good evidence that in cattle about one in 10 infected animals transmit the disease to a calf. The prion that causes BSE is identical to the one found in humans with vCJD, so it is logical that there would be a risk of vCJD jumping from mothers to children.”

Global infection; 10 June 2000

It's official: even in countries that deny it, some cattle are likely to be harbouring BSE

ACROSS Europe, tens of millions of people believe they have little chance of catching new variant Creutzfeld-Jakob disease (vCJD) because their countries are officially BSE-free. But scientists advising the European Commission say they have every reason to be worried.

BSE, believed to be the cause of vCJD, is much more widespread than some countries will admit: the advisers say that Germany, Italy and Spain, officially BSE-free, are "likely to be infected". And infection "is unlikely but cannot be excluded" in six more European countries, as well as Canada, Australia and the US.

These figures have emerged from a two-year study for the Commission of the factors affecting the spread of BSE in 25 countries by independent scientists and experts in the

countries concerned. They collected data on each country's import of cattle and meat and bone meal (MBM) from Britain and other BSE-infected countries, then calculated how well the importing ...

British doctors fear mother has passed human BSE disease to baby; 17 March 2000

Doctors in Britain are concerned that a 24-year-old mother has passed on the fatal human form of BSE (Bovine Spongiform Encephalopathy or “mad cow disease”) to her baby, now four months old.

Twenty-four hours after birth the baby was taken away because it was failing to feed and in need of help. The mother, who cannot be named for legal reasons, had originally been diagnosed as suffering from depression. Nurses became increasingly concerned as the mother's depression worsened and the baby reacted badly to tests. Two months after the birth, doctors carried out a brain scan on the mother and found the degenerative changes that are associated with the presence of variant Creutzfeldt Jacob Disease (vCJD), or human BSE.

Further tests confirmed the presence of the abnormal prions, the agent found in cattle with BSE. If it is confirmed that the baby has CJD, it will confirm what scientists have long feared—that the disease can be passed from mother to child. Initial tests on the child have found lesions and plaques similar to those found in adults with vCJD.

Already 51 people in Britain have died as a result of contracting vCJD through eating contaminated meat. More than a dozen people still living are exhibiting symptoms of the disease. If a mother can pass the disease on to her baby, these figures could rise dramatically. Not only does the threat of the disease hang over people who ate beef in the 1980s and early 90s, but it may have grave implications for future generations.

The young mother's illness has devastated her family. The woman's mother remarked, “We are just an ordinary family, but we're being destroyed by a man-made disease that should never have happened. She was always laughing, telling jokes and making friends wherever she went. She was out most weekends, dancing or meeting people."

Unlike many diagnosed late with the disease, the young mother knew she had vCJD early on. “She had twice told me she knows she has got mad cow disease and that she is going to die," her mother said.

While not commenting on this particular case, vCJD expert Professor John Collinge said, "It was something that was always on the cards. Sheep scrapie, a similar prion disease, passes from ewes to their lambs. There is good evidence that in cattle about one in ten infected animals transmit the disease to a calf."

Another disturbing aspect of the case is that the medical instruments used during the woman's delivery have been used on a further seven occasions, according to West Midlands Director of Health Dr. Rod Griffith. The prion agent can survive the sterilisation process. Griffith told BBC radio, “We know who the patients are, but no, we haven't got in touch with them because ethically it's not clear whether that's the right thing to do.” He said any risk of contamination was "vanishingly small".

This was opposed by the German vCJD expert Roland Heynkes. "Is it really OK not to tell them, that they can live without this fear?" he asked. "But perhaps there may be many more patients with developing CJD who have been contaminated with surgical instruments. Contaminated surgical instruments may not be a problem for many British women, because they are already infected directly from cattle."

Wurst case scenario; Lovers of German sausage risk exposure to BSE; 4 March 2000

Lovers of German sausage risk exposure to BSE

MILLIONS of Germans could be eating brain tissue in cooked meat products that are supposed to be "brain-free", a new test reveals.

German scientists have developed the first test for brain and spinal cord material in products such as pâté and sausages. Their tests reveal that up to 15 per cent of German liverwurst and mettwurst, also known as bologna, may contain undeclared brain material. The scientists say that the use of such tissue is "unacceptable with regard to the development of new variant CJD".

Countries which recognise that their cattle may have BSE destroy brains and spinal cords from slaughtered animals, as these are the most infectious parts. The European Commission wants all member countries of the European Union to do the same, in case BSE is lurking in countries that are officially free of it. In December, the Commission's Scientific Steering Committee (SSC) concluded that "failure to do ...

Risk of Mad Cow Disease growing throughout Europe; 15 January 2000

A single cow infected with bovine spongiform encephalopathy (BSE), or Mad Cow Disease, could expose up to 400,000 people to the risk of infection according to the European Union's Scientific Steering Committee (SSC). This is the worst case scenario presented in the Committee's report *Human Exposure Risk via Food with respect to BSE.*

Because ground meat used for pasta, pies and sausages is generally made in batches of 5 to 7 tonnes, it is possible for hundreds of thousands of people to eat the BSE agent from one cow. The amount of agent that causes infectivity in humans and results in the human form of BSE-variant Creutzfeld-Jakob Disease (vCJD) is unknown.

Figures from the organisation that monitors animal disease, the Office International des Epizooites, show increasing numbers of BSE cases in Europe (excluding the UK). Italy reported 22 cases for the first time in 1999 and the Netherlands reported 65—up from two in 1998. There is a steady decline reported in the UK, from a peak of 3,500 cases a month in 1992-93 to 150 at present.

Cases of vCJD are also increasing. So far 48 people have died in the UK of vCJD and scientists say there are 10 more people suspected of having the disease. There has been one case in Ireland and the authorities have confirmed a third case in France.

The SSC say that even in European countries that claim to be BSE-free, some infected animals are still entering the food chain. In any case their populations are at risk because trade in cattle and food containing cattle material is so widespread. The methods to prevent BSE from spreading are “far from being satisfactory,” they add.

The SSC concludes its report with a call for a ban on all infected animals in food and if that is not possible to ban high-risk tissue such as brain and spinal cord. Action has been slow and patchy since the disease was first recognised in 1986. Only seven member states—France, Belgium, Ireland, Luxembourg, the Netherlands, Portugal and the UK—have legislation banning the use of high-risk tissue. Even then passing of legislation is no guarantee that it is enforced. In France many people eat amourette containing brain and spinal cord and andouillette made from intestines of young calves (the most infective organ at that age).

In 1998 the European Court criticised the European Commission's handling of the BSE crisis. The Commission had not enforced legislation and agreements relating to animal

identification, use of ruminant animal feed containing mammalian tissue (MBM) and the ban on British beef exports. The UK government continued to export MBM after it had banned it at home in 1988 and the EU only banned its use in June 1994. From 1996 governments had access to EU money to buy up exported UK calves. Despite this, the Belgian government sold 20,000 cattle of UK origin for human consumption. The first animals with BSE in Belgium and Luxembourg in 1997 were made into MBM and exported.

The European Court complained of under-reporting of BSE cases. Of the cattle exported from the UK between 1985 and 1989, scientists predicted there should be 1,600 cases of BSE. However, only 400 cases were reported, many of which were not British cattle.

Professor Jeanne Brugère-Picoux, of the French food safety agency (AFSSA), says that the number of BSE cases in France is far higher than the 75 reported so far. She claimed that the French policy of slaughtering a whole herd if there is a case of BSE scares off French farmers. "The first inkling they have that something is not right, off goes the animal to the abattoir. It then enters the food chain," she added.

As the problems grow in mainland Europe, the claim by the Blair Labour government that "British beef is the safest in the world" might seem to be true. In the UK, beside the ban on MBM feed, high risk material and exports there is also a ban on meat from cattle over 30 months old. This is because the incubation period of the disease is typically four to five years. However about 2 percent of the 175,000 BSE cases identified have been in cattle under 30 months. A great many more cattle will have the disease, but not show the symptoms.

The 30-month ban is also being broken, according to a report in the *Sunday Times*. Graham Bell, an official at the UK Intervention Board, said, "It has not been monitored properly and not nearly enough has been done to stop dishonest practices." Farmers and cattle dealers have altered identity documents to conceal the ages of cattle and 90,000 cattle have disappeared from the registers. "There is a hard core of people who are trying to get animals over 30 months into the human food chain," said Nigel Durnford, an animal health inspector.

Recently Agriculture Minister Nick Brown appeared before the Parliamentary Select Committee on Agriculture. He said his aim was to be "a good governmental sponsor for the [agricultural] sector". About beef he said, "our objective is to sell the product". The committee itself complained that "steps taken for public health might have an adverse impact on competitiveness," adding that the beef bans had given "assistance to competitors". Its main recommendation was to tell the government it needed "a strategy to enhance long-term competitiveness".

By making beating the competition the driving force of policymaking, and not the satisfaction of human needs, the main lesson of the BSE crisis is being lost. The Labour government is responsible for sowing the seeds of future disasters.

On a European level, the future for containing the BSE and vCJD problem is not much better. Only three countries responded to the request by the SSC for information on the uses of bovine materials and even these replied in "rather global and qualitative terms".

Study finds "indisputable" link between BSE/"Mad Cow Disease" and CJD in humans; 29 December 1999

A team of scientists working on the link between Bovine Spongiform Encephalopathy (BSE or "Mad Cow Disease") and the degenerative brain condition found in humans, (new) variant Creutzfeldt-Jakob disease (nvCJD or vCJD), have made a significant breakthrough. The research, which has been carried out by doctors in Scotland and the US, found that the infectious agents, or prions, that cause both BSE and vCJD produced exactly the same disease characteristics when injected into laboratory mice.

One of the researchers behind the study, Professor Stephen DeArmond from the University of California, San Francisco, said, "taken together with other evidence, the link is now indisputable".

The scientists, led by Michael Scott from the University of California and Robert Will at the British government's CJD Surveillance Unit in Edinburgh, found that when diseased human brain tissue was injected into mice, the results were identical to those produced by the injection of BSE-infected bovine material. In both instances there was no apparent sign of a “species barrier” preventing the disease passing from cattle to humans. The incubation period was the same—250 days—and the pattern of brain damage was identical.

The results, reported in the *Proceedings of the National Academy of Sciences*, suggest that BSE and vCJD are interchangeable. The scientists injected transgenic mice, whose own genetic makeup had been altered, with infectious material from cattle and humans. "That human nvCJD prions so precisely duplicate the properties of native bovine BSE prions in their behaviour on transmission into ... transgenic mice creates a compelling argument for an etiological [causal] link between BSE and nvCJD.

"Although earlier proposals of an etiological link between BSE and nvCJD were disquieting, the investigations reported here raise greater concern that a large section of the UK population may be at considerable risk."

According to official figures, there have been 48 deaths from vCJD so far in Britain, with a further two in France and one in Ireland. But scientists point out that it is impossible to say with any certainty how many people may eventually be affected, as the incubation period for vCJD is thought to be between 15 and 20 years. The number of deaths has doubled since the opening of the BSE inquiry, set up by the Labour Government two years ago.

Dr. Richard Knight, a clinical neurologist at the Edinburgh CJD Surveillance Unit, recently confirmed that the unit is currently dealing with a further 7 to 10 suspected cases. He said, "There is a long-term rise in the number of cases but the overall numbers are still too small to tell us the eventual size of the epidemic."

The Chief Medical Officer in England, Professor Liam Donaldson, has warned that a major epidemic could not be ruled out. He told BBC Radio, "We are not going to know for several years whether the size of the epidemic will be a small one—in other words in the hundreds—or a very large one in the hundreds of thousands."

Professor Hugh Pennington, who conducted the inquiry into deaths from food infected with E.coli in Lanarkshire Scotland, said Britain must be prepared for the worst. "We've been exposed to the BSE agent in the past and so, in a sense, we have to prepare for perhaps thousands, tens of thousands, hundreds of thousands, of cases of vCJD coming down the line."

The most spine-chilling remarks came from Professor Peter Smith, who sits on the government's Spongiform Encephalopathy Advisory Committee (SEAC). Responding to recent findings indicating that some people's genetic makeup could make them more susceptible to the disease, he said, "all of the cases so far have been of a particular genetic type—unfortunately approximately 40 percent of the population are in that category".

Even within the intentionally constricted remit of its proceedings, Lord Phillips, who heads the government's BSE inquiry, said on summing up that the present victims of vCJD might only be the “tip of the iceberg". Most in the scientific community believe that a true picture of the numbers affected will not emerge before the end of 2003. They are also calling for the "n" to be dropped from the prefix to the disease, as it is no longer new.

These comments are a world away from the reassuring messages issued by the Labour government spin doctors, who claim that British beef is the "safest in the world" and that no one should have any worries on that score. Those who know from personal experience about

the devastating nature of the disease are very concerned about those who are suffering now and will undoubtedly suffer in the future.

Frances Hall, secretary of the vCJD Relatives Support Group, whose 21-year-old son Peter died from vCJD, told the *World Socialist Web Site*: “In our minds, it was apparent all along that our loved ones were dying through contact with bovine products.” She is appalled by the Labour government's rush to get beef back into the national diet, and especially that of young children. "Nobody has died for lack of beef, and nobody can say that eating beef is 'without risk'."

Hall is concerned that no preparations are being made to provide help for vCJD patients and their relatives. "We went as a delegation to the House of Commons during a recent adjournment debate when an amendment was being put by a back-bench MP calling for an adequate care package to be put in place for vCJD patients. But it was voted down. They said that there was no need for it—that the present social services can provide all that's necessary. It's not true. In the main, vCJD affects young people and there is no provision for them. The effects of this disease can't be likened to anything else. No one who hasn't experienced it can have any idea what it is like, and we don't want other people to suffer as we have suffered."

Following the recent lifting of the ban on the sale of British beef "on the bone", pressure is increasing for local education authorities that no longer serve beef in school meals to put it back on the menu. This is something that the Meat and Live Stock Commission has been encouraging. Internal documents openly called for schools to be targeted as a means of “renewing confidence” in British beef.

It is more than 10 years since the then Tory government banned the use of parts of beef cattle thought to present the greatest risks of infection. Since then, the "over 30-month scheme" has been introduced supposedly prohibiting cattle above that age from entering the human food chain as the government claims that only animals over this age present a danger of infection. However there is no experimental evidence to back up this claim, and it has been shown that the government's introduction of “cattle passports” intended to enforce the "over 30 months" scheme by providing evidence of an animal's age and history, is being regularly flouted.

British investigators have recently confirmed that they are examining more than 50 cases where farmers and cattle dealers have allegedly used bogus identity documents to conceal cows' ages in order to sell them for human consumption. Last week, the Ministry of Agriculture, Fisheries and Food admitted that 90,000 cattle have “gone missing” from its computerised tracking system. Their spokesman made light of this, blaming it on "mistakes in the paperwork" on the part of the farmers. Trading Standards Officers in several counties, including Gloucestershire, Shropshire and Somerset, are currently involved in dozens of fraud investigations.

At least 1,600 cows a year are still being diagnosed with BSE in Britain, despite the fact that the government insists that infection is no longer a problem. The obvious question is, how can this still happen, when the contaminated animal feed thought to be responsible for the original BSE outbreak was banned years ago? BSE experts like Professor Richard Lacey believe that the disease is now endemic among British cattle and can only by eliminated by slaughtering the national herd. So far, there have been more than 175,000 confirmed BSE cases and more than 1million cattle slaughtered as part of the government culling policy to eradicate the disease.

Mad Cow Disease inquiry reveals how British government protected pharmaceutical companies at expense of public health; 9 December 1999

Most attention during the crisis surrounding Bovine Spongiform Encephalopathy (BSE), commonly known as Mad Cow Disease, has focused on the risk of eating beef. However evidence to the ongoing British government BSE Inquiry shows how the potentially greater risk from the use of cow by-products in vaccines and other medicines was covered up.

The Blair government set up the BSE Inquiry in March 1998 and it is due to report in March 2000. Its aim is to "establish and review the emergence and identification of BSE and its human equivalent, and of the action taken in response to it up to 20 March 1996". This was the date that the then Conservative Health Minister, Stephen Dorrell, admitted that there was a link between BSE and a new form of the disease in humans called new variant Creutzfeld-Jakob Disease (CJD). Forty-eight people have died of the disease so far and the final number could be much greater due to a suspected long incubation period. CJD may have affected its latest, and youngest, sufferer—a 13-year-old girl.

BSE and nvCJD are related diseases that attack the nervous system and make the brain spongy, resulting in dementia and death. It is almost impossible to eradicate. Most knowledge of the disease comes from research into a variant of it found in sheep, Scrapie. This disease has been known for more than 200 years but does not appear to harm shepherds or those who eat lamb or mutton. From the beginning of the epidemic it was assumed that BSE would behave like Scrapie and not infect humans, despite the fact that feed contaminated with Scrapie was thought to have caused BSE in cattle. Because of the potential danger from Scrapie, pharmaceutical companies did not use sheep as ingredients in medicines or in their production.

The Inquiry was told that the first hint that BSE was a health problem arose in July 1987. John Sloggem, a government Pharmaceutical Officer, was investigating a new medicine. He found that the Committee for the Safety of Medicine (CSM) had refused it in 1984, because it wanted proof that "slow virus contamination was not a problem" in the cow brain used to make the medicine. He investigated further and was told about a "scrapie-like disease that is occurring in cattle" and had the impression that "the cattle slow virus issue was a matter that was not widely known and should not be publicised".

It was not until December 1987 that the agricultural and farming ministry, MAFF, produced an internal report entitled "BSE—implications for biological products". It recommended a ban on the use of suspected or confirmed cases of BSE and the most infective materials—nerves and lymph—in all cattle.

In February 1988 MAFF officials warned Sir Donald Acheson, the Chief Medical Officer at the Ministry of Health, about BSE. They said "it was necessary to assess the risk in humans in order to justify the cost of any control measures taken by MAFF". They agreed to set up an expert working party to be chaired by Sir Richard Southwood, Professor of Zoology at Oxford University. Meanwhile "the agreed approach was to await the findings and report from the Southwood Working Party before finalising our advice on BSE and medicines".

Guidelines to pharmaceutical companies

The Inquiry was told how the veterinary industry trade association, the National Office of Animal Health (NOAH), met with MAFF and "felt that the publication of Guidelines was required to protect the UK image and demonstrate to the (European) Commission that we had a clear action policy".

By November 1988, the CSM had proposed draft guidelines. They said no immediate action should be taken against medicines taken orally in view of the widespread consumption of beef. The pharmaceutical companies should use low risk by-products from certified healthy herds and show that they could eliminate the Scrapie-like agent.

MAFF replied that many of the guidelines were unworkable. They concluded, "Extravagant action now to deal with a contingent risk could (in the future) seem to be wholly disproportionate."

By now, according to the Inquiry, the CSM also “realised that virtually none of the current essential human or animal vaccines could comply with (their own) Guidelines and there may be several years of some vaccines in stock to make matters more difficult. Public confidence in the vaccination programme must not be put in jeopardy and yet supplies of some vaccines are very limited.” This was a genuine worry. A vaccination scare during the period 1980-88 had led to 123 deaths from measles and 50 from whooping cough in England. There had been a number of other health and food "scares" leading up to the BSE crisis, in which the public had started to lose confidence in science and government. This was the end result of a process involving commercial competition, pressure from business interests, intensive farming techniques, deregulation and cutbacks.

When the pharmaceutical companies received the guidelines, they were told they were just “best practice” for the future and a “purely precautionary measure” against “a remote risk”.

The Southwood Report

The final version of the Southwood Report was published on February 27, 1989. It said that cattle would prove to be “dead-end” hosts for the BSE agent and it was unlikely that there would be any implications for human health.

At the next meeting of NOAH and MAFF, the minutes record “Sir Richard Southwood's Report had thus far turned out to be a damp squib. However, it was stressed that care must be taken to ensure that certain elements of the press do not get hold of the wrong impression about the safety of vaccines—both human and veterinary—and cause major problems.”

On July 5, 1989, Southwood wrote to Dr. David Tyrrell who was investigating what research was needed into BSE. He stated: “I just hope that the Ministry and others will, notwithstanding the ridiculous attitude towards public expenditure, find the necessary funds to undertake the high priority research.... You are absolutely right to point out gently how we were forced to argue from analogy with scrapie and one waits with some anxiety for the experimental confirmation of that assumption. Personally I would have thought the possibility of human infection was moderately high if some medicinal products were made from tissues of infected animals and injected into humans.”

Kenneth Clarke, Secretary of State for Health at the time, was shown the Tyrell letter at the Inquiry. He said he had not seen it before and would have ordered the withdrawal of all suspect vaccines. He admitted that a significant number of patients could have become infected.

The case of company Z

Whilst the Inquiry revealed some of the secret workings of government, pharmaceutical companies have been protected by confidentiality clauses in the 1968 Medicines Act. The Inquiry was warned not to mention their names—instead the word "redacted" appears in the transcripts.

The Inquiry heard how investigations found there were 111 medicines administered by injection using the most risky by-products—brain and lymph. Most were made from imported material, but a range of homeopathic medicines and surgical sutures were not. The sutures used for sewing up tissues after operations were manufactured by the main British supplier referred to as "Z". They were made from cleaned cow intestines that the company processed at the rate of 2,500 a day. Against the advice of their own guidelines, officials renewed the licence on condition the company used intestines from clean beef cattle 18 months to two years old.

A minority recommended the use of intestines from BSE-free countries. The Inquiry was shown minutes where officials pointed out that “the agreement with the Company is ‘confidential' so that there will be no direct comparisons” between the conditions they had set and the recent ban on offals, including intestines, for human consumption. Four years later,

government officials announced that a study had detected BSE infectivity at the end of the small intestine from calves as young as six months old.
By July 1992 the BSE Inquiry was told all vaccines available in Britain fully complied with the guidelines and did not use British cattle by-products. By the end of the same year 40,000 cattle had shown symptoms of BSE. The number incubating BSE was much larger.

But what of the stocks of vaccines? According to the *Daily Telegraph*, the BSE Inquiry has failed to establish what happened to them and "pharmaceutical companies have so far declined to volunteer the information". One Inquiry spokesperson said, "It is possible that we will never know whether all these vaccines were destroyed or whether they were used." All the Labour Health Minister, Tessa Jowell would say is they were "not disposed of or discontinued".

Statistics point to increased incidence of brain-wasting disease in Britain; 23 March 1999

A research letter published in the *Lancet* medical journal points to a possible increase in the rate of people dying from new variant Creutzfeldt-Jakob disease (nvCJD), a fatal brain-wasting disease also called Human BSE.
BSE in cattle, or "Mad Cow Disease", was first officially noted in Britain in 1986. The number of cases then accelerated dramatically, rising from 60 in 1986 to over 600 in 1987 and more than 3,000 in 1998. The crossover from cattle BSE into the human population was finally admitted in March 1996, when then Conservative Health Secretary Stephen Dorrell admitted that scientific evidence showed the most likely cause of nvCJD was through consumption of meat or meat products from BSE infected animals.
The CJD Surveillance Unit had been set up in Edinburgh, Scotland to monitor the numbers of mainly young people dying from this new and frightening disease. The letter in the *Lancet* is from a group of research workers at the unit headed by Dr. R.G. Will. The unit monitors those suspected of having the disease and carries out postmortem tests to determine if nvCJD was the cause of death. The unit has compiled figures on the numbers dying from the disease from 1995 onwards, and publishes them quarterly.
Up to March 2, 1999 the unit reports 39 deaths from nvCJD. Subjecting the quarterly figures to statistical analysis it concludes that, up to and including the third quarter of 1998, the number of deaths from the disease was fairly constant over time. However, the nine deaths in the last quarter of 1998 mark a departure from this and could signify an increase in the mortality rate.
This has led scientists to express concern that the country may be witnessing the start of an nvCJD epidemic. Professor John Collinge, the director of the Medical Research Council's Prion Unit who sits on the government appointed committee to advise on CJD, told the *Independent* newspaper of March 18, "I am personally concerned the country may face a serious epidemic of this disease--it is entirely possible." A report in the *Daily Express* on March 17 quoted a Department of Health representative saying, "If there is bad news, it could be that we will get the bad news within six months, certainly within 12 months."
Tests are being conducted by the Medical Research Council to try to determine the level of the disease's incubation in the British population. Tissue samples from tonsillectomies and appendectomies are routinely collected. These are being examined to see if they are infected. The prion protein believed to be responsible for the disease is present in these organs, as well as the brains of infected individuals. Tony Barrett, a coastguard from Torbay, died of nvCJD in 1998. He had undergone an appendectomy in September 1995 before displaying symptoms. Tissue analysis of the removed appendix showed traces of the prion protein.

A separate development is reported in the journal *Science*. It notes that a team led by Professor Collinge has made a breakthrough in understanding the cause of nvCJD. BSE and CJD are part of a family known as Transmissible Spongiform Encephalopathies (TSEs). They are unique in that the disease agent is not a bacteria or virus as in other infectious diseases, but the prion protein which occurs naturally in the body tissues. The disease mechanism occurs when the prion becomes deformed and changes shape.

The change of shape is initiated by a rogue misshapen prion. This will go on to corrupt other prion protein molecules in a domino effect. These prion proteins are present in the brain. Whereas the normally shaped prion protein molecule can be dissolved, the misshapen form cannot. The deformed prion molecules build up on the surface of brain cells and form plaques or clumps. The brain cells die off and leave the characteristic holes when brain tissue samples of CJD infected victims are examined under the microscope.

Professor Collinge's team has been able to capture the transformation of the normal type of prion into the abnormal type in a test tube. They were able to show that the conversion is as a result of the breaking of a single bond within the prion protein molecule. (A bond is a joining of two atoms within the molecule--protein molecules are made up of chains of carbon, hydrogen, oxygen and nitrogen atoms joined in long convoluted chains). It seems that the prion protein is unique in being able to exist in two entirely unrelated shapes.

This development opens up the possibility of creating antibodies, which could be used to detect the rogue prion protein. It could lead to new tests to detect the disease in humans and animals and may eventually produce an effective treatment for the disease. Professor Collinge cautions against expecting an early result, saying, "While it leads to the possibility of developing much better diagnostic tests, our eventual goal of an effective treatment for these devastating brain diseases still remains an enormous challenge."

Solicitors acting for the families of victims of nvCJD have started legal action against the government. Their writ seeks damages for loss, pain and suffering by the victims and their families. It alleges that the Ministry of Agriculture, Fisheries and Food (MAFF) and the Department of Health demonstrated a failure of "due care" by exposing people to the danger of contracting the disease.

Solicitors had to act by March 20, three years since the previous Conservative government accepted the link between nvCJD and BSE in cattle. Under English law there is a three-year limit on claims for damages. It is expected that the legal process will be protracted and will not commence until the current government inquiry into BSE concludes. The inquiry is due to move into its second stage after Easter, when prominent witnesses could face cross-examination.

The *Lancet* report on the CJD Surveillance Unit's findings carries an editorial giving a brief historical outline of the course of the BSE and subsequent CJD infections in Britain. It warns against any complacency about the future course of the disease and is very critical of the actions taken by government throughout the epidemic. It concludes: "The outlook, from many aspects, is grim. In the UK the BSE inquiry will almost certainly publish an anodyne report replete with hand wringing, but conclude that no one is to blame. Worldwide, animal-feeding practices will continue to be driven by the prospect of a quick profit and not by considerations of sound animal husbandry."

British officials fall out over the "Beef is Safe" campaign; 5 November 1998

"British beef is safe" was the constant message of the previous Conservative government, its top officials and the meat and farming industries as the crisis resulting from Bovine Spongiform Encepalopathy (BSE), or "Mad Cow Disease", unfolded.

This apparent unity has started to collapse as each of the protagonists has tried to justify their own actions and pass the blame to others for a public scandal that has seen 29 people die from the human form of BSE, and has cost billions of pounds in compensation paid to the beef industry.

The unsavoury spectacle of senior public health officials and industry spokesman exchanging claim and counter-claim in an attempt to pass the buck could be witnessed during the Labour government's public inquiry into the BSE crisis. The official terms of reference of the "BSE Inquiry", set up earlier this year, are: "To establish and review the history of the emergence and identification of BSE and new variant CJD in the United Kingdom, and of the action taken in response to it up to the 20 March 1996; to reach conclusions on the adequacy of that response, taking account of the state of knowledge at the time; and to report on these matters." The 1996 date corresponds to the announcement in parliament by the then Tory Secretary of State for Health Stephen Dorrell that a link between BSE in cattle and new variant Creutzfeld-Jakob Disease (nvCJD) in humans had been confirmed.

Three officials, in particular, dominated the nation's TV screens and newspapers during this period. Sir Donald Acheson was the Chief Medical Officer at the Department of Health from 1983 to 1991. His successor was Sir Kenneth Calman. Keith Meldrum was Chief Veterinary Officer between 1988 and 1997 at the Ministry of Agriculture (MAFF).

All made repeated statements that "beef is safe". Since the cattle organs considered most dangerous, such as the brain, spinal cord and other offal, were banned for human consumption in 1989, it was said that eating beef muscle did not cause CJD.

Sir Donald Acheson told the inquiry there was "tension" between his department and MAFF and that he was pressurised to say beef was safe. "It was several years after the events that I became aware that for some people the word 'safe', without qualification, means zero risk," he said. Asked about his reassuring statement to the media after a Siamese cat died of BSE in 1990, he said, "I find it impossible to reconstruct the considerations that led to the wording of my own contribution, in particular, why I chose to follow MAFF in the word 'safely' rather than 'with confidence'."

His successor Sir Kenneth Calman was aware there was a chance BSE might infect humans even before he became Chief Medical Officer. After the Siamese cat died, he said it "strengthened my view", but he still endorsed Acheson's statement that beef was safe. He explained that safe meant "negligible" and not "zero" risk.

Calman claimed he was first formally told there were serious breaches in the offal ban by Keith Meldrum in October 1995. He claims Meldrum expressed disappointment at the breaches, but "understated the importance of this information." Calman also said he was astonished at the "careless attitude" of farmers and slaughterhouse owners. "For me it was important the public were given all the information. This included the important new information that offal could have entered the human food chain. MAFF clearly found that a step too far for them and wanted to change that." He said MAFF were more worried about the costs to farmers and reassuring the public. However, Calman himself agreed to advertisements by the Meat and Livestock Commission two months later reassuring the public regarding the safety of eating beef.

The former Chief Veterinary Officer replied to Calman's accusations, saying, "I should be judged by my actions and not by my words." Meldrum said, "It is unfortunate that those who are following the inquiry are not able to see the totality of the picture and therefore the comments from Sir Kenneth Calman are not being seen against the comments from my old department [MAFF]." He said he had kept Acheson and Calman informed of any new findings, however unimportant. When he talked to the media he said he was simply following the line taken by successive Chief Medical Officers, particularly on the safety of beef.

However, his statement to the BSE Inquiry shows he was aware of problems with the offal ban from the start. In August 1992 he received reports from contacts in the meat industry about failures to separate out the banned offal. In May 1994 the rendering company Prosper de Mulder repeated the same information.
Meldrum also reported that Ministers and officials had discussed destroying all British cattle in 1990 but admitted that no contingency plans had been drawn up for the eventuality the disease might spread to humans. "It would have been the equivalent of planning for a disaster," he added.
Andrew Fleetwood, a MAFF vet, said he was told unscrupulous abattoirs had cheated the offal ban and it was treated "little better than a joke in certain quarters" of the meat industry. Meat Inspectors "were often quite junior and easily browbeaten by the slaughterhouse managers," who were probably aware of any inspections in advance, he claimed.
Peter Carrigan, whose company disposes of abattoir waste, complained of Meldrum and "the clowns whose total inaptitude brought this once prosperous industry to its knees." He said he was "more likely to meet a Martian than a MAFF vet within an abattoir."
After seven months of hearings, the BSE Inquiry finally took evidence from a number of relatives who had lost their loved ones to nvCJD. Although the beef industry was paid billions of pounds in state handouts for its losses, the relatives of those struck down by this terrible disease have yet to receive a single penny in compensation. Indeed, it has been left to the families to draw up proposals for the provision and costing of care for nvCJD patients. Many suffered appalling problems trying to care for and bury their relatives.
Dot Churchill explained that a wheelchair only arrived for her son Stephen three days after he had died in 1995. She said she was in contact with a family who had made 42 calls to different medical professionals about their son, who was showing the symptoms of nvCJD. Nobody would listen until he was arrested by the police. She said, "I think that is a very sad reflection that three and a half years on this is still happening." The people who told us beef was safe in the past are still giving the same reassurances today, she added.
More information is yet to come out. Meldrum has so far refused to release tapes in which he voices his opinions of other officials and ministers. MAFF, the government department implicated in the whole crisis, would not provide the BSE Inquiry with a report in its possession, believed to contain a history of the BSE crisis, listing MAFF's mistakes and potential legal liabilities.

The first phase of the BSE Inquiry concludes this year with evidence from former government Ministers. Phase two will take further evidence clarifying submissions, dealing with conflicts and potential criticisms. It will conclude with final submissions from the counsel to the inquiry. The inquiry report, expected in July 1999, will first be presented to government ministers.

BSE detected in beef passed for human consumption; 20 October, 1998

Concrete proof has emerged that meat from animals infected with "Mad Cow Disease", or BSE, is going undetected onto supermarket shelves, thus exposing the human population to an incurable disease that has already caused the deaths of at least 29 people. A number of scientists have warned for over a decade that besides those cows showing obvious signs of BSE, there would be a larger number suffering from the disease but not yet showing visible symptoms. These warnings have now been belatedly confirmed.
As a result of a test for BSE undergoing trials in Switzerland, a cow suffering from the disease has been identified, which would otherwise have been sold as healthy meat. Switzerland is the first country to develop and use a test for BSE that is rapid enough to

provide results in time to stop unhealthy animals from going into the food chain. A total of 3,000 randomly selected cows were tested using the fast technique developed by Prionics, a Zurich-based company. The results of this preliminary test were then confirmed using a slower, more widely used method. In all cases the results of the new, faster method and the slower method were the same. While the cows tested were all over 30 months old, this was not because the disease is absent in the younger animals. "We would have needed a very large sample size to have detected infection in younger cows," said Markus Moser of Prionics, "But cows 20 months old have developed BSE in Britain."

Although the sample size is too small for any accurate conclusions to be drawn, the test implies a rate of infection of 4.5 cows suffering from BSE per 1,000 amongst those cows processed for human consumption. The total number of BSE-infected cows identified in Switzerland is in the hundreds, as against hundreds of thousands in Britain.

New Scientist said in its October 17 editorial headlined, "Here's the beef: we shouldn't have to wait until we've eaten it to find out whether it's safe":

"It is scandalous that it has taken until now to test healthy cattle at the abattoir ... it is beyond belief that this has still not been done in Britain, home of the disease." A member of a government committee on BSE, Roy Anderson, is quoted estimating that between 200 and 300 cows incubating BSE are entering the food chain each year. He did not call for the immediate introduction of the Swiss method of testing at British abattoirs, but said, "If it is not too expensive and reliable, testing at abattoirs would make sense." The British authorities, *New Scientist* reports, have decided testing is not warranted.

This response will not be surprising to those who have followed the official inquiry into BSE currently being held in Brixton, London. The investigation has been limited to events occurring before the present Labour government came to power, implying that the problem has now been solved. It has also been made clear that none of those responsible for the outbreak, spread and human consumption of BSE-infected meat will be held responsible for their actions. This is why those government advisors who have been called upon to testify have felt free to admit that essential facts about BSE were kept from the public, and that maintaining confidence in the beef industry was given a higher priority than protecting human health.

These latest events add further weight to the findings of the Workers Inquiry into Human BSE held last year by the Socialist Equality Party in Britain. The findings noted, "The choice of the 30 month figure [for the slaughtering of cattle] was made on commercial grounds because beef cattle are normally slaughtered below that age anyway. Cattle below that age could be infected and be spreading the disease but are unlikely to show the symptoms."

"Mad cow disease" could have spread to Britain's sheep; 16 September 1998

The September 3 issue of the scientific journal *Nature* claims that "mad cow disease" or Bovine Spongiform Encephalopathy (BSE), could have infected sheep in Britain. Scientists studying BSE consider this a real possibility. It is widely considered that the practice of using rendered down cattle remains to produce cattle feed led either to the outbreak of BSE or at least its epidemic spread in the national herd. Until the feed ban in July 1988, sheep had been fed with the same feed as cattle.

Sheep in Britain have been subject to an endemic form of a spongiform encephalopathy known as scrapie for about 200 years that could not be passed to humans. Consumption of BSE-infected beef, in contrast, has been shown to be responsible for the 27 deaths to date from new variant Creutzfeldt Jacobs Disease (nvCJD), also known as human BSE.

Because of the similarity of symptoms of scrapie and BSE, there is a danger that sheep carrying BSE might have been overlooked. The government is aware of this danger. It has established a sheep subcommittee of its Spongiform Encephalopathy Advisory Committee (SEAC). This is to be chaired by Professor Jeffrey Almond, professor of microbiology at Reading University. Since July 1996 there has been a ban on sheep brains going into the human food chain and from May 1997 the ban was widened to include the spinal cord, spleen and mechanically recovered sheep meat. This year the Ministry of Agriculture Fisheries and Food (MAFF) is also spending a fifth of its albeit minuscule BSE research budget of £12.7 million on sheep spongiform encephalopathies.

The *Nature* article points out that if BSE has entered the sheep population it is likely to show the same properties as scrapie of being passed from animal to animal. The official position of SEAC is that BSE cannot be transmitted from cow to cow, though experts such as professor Richard Lacey dispute this. SEAC do believe, however, that in sheep BSE would be transmissable like scrapie and become endemic in the national herd. The infectivity of sheep BSE would also be similar to scrapie, affecting a wider range of organs than is thought to be the case in cattle.

SEAC is concerned that insufficient measures have been taken to detect possible BSE in the sheep population. So far only 9 sheep out of an adult population of 20 million have been tested. It is claimed that the testing is difficult to carry out because it involves injecting material into different strains of mice and can take up to two years for the results to be become apparent. John Collinge, head of the Prion Disease Group at the Imperial College of Medicine in London, claims to have developed a faster and cheaper test, but the government has not provided the resources to carry out the technique on a wide scale.

Commercial interests are again being put before possible risk to human health. Resistance to using Collinge's technique is explained by *Nature* by quoting the European Commission's independent Scientific Steering Committee. They warn, "The consequences of identifying a first case of BSE in sheep would be catastrophic so we need to be really sure (about the reliability of the identification)."

The *Nature* article warns that the New Labour government is repeating the "mistakes" of the previous Conservative government which denied the danger posed by BSE in cattle. Jack Cunningham, until recently Labour's Agriculture minister, interpreted the absence of any sign of BSE in the nine sheep scrapie cases investigated so far to say there is no evidence of the possibility of sheep BSE. Professor Almond points out, "absence of evidence is often confused with evidence of absence."

An article in the *Independent* newspaper of September 8 explains that when the Blair government was made aware of the *Nature* article they set up a damage limitation operation. A restricted memorandum was sent to Whitehall departments. This outlined 16 questions and answers that could be used to fend off inquiries from the media. Shelia McKechnie, head of the Consumers' Association, has raised concern over feeding lamb to small children. One of the standard answers reads, "The age range of new variant CJD does not suggest that those who were probably exposed to BSE infection, were at any greater risk than those who were young adults ... infants and children were not likely to be more susceptible than adults."

Professor Almond warns of the dangers posed: "I think there is a distinct possibility that BSE is out there in the sheep population ... if we found BSE in sheep it would be a national emergency." He then accepts that "to minimise the risk [of being infected with BSE by eating sheep] you would have to condemn the entire carcass." But Almond goes on say that it would not be justifiable to kill the whole sheep flock, "We had to find a middle ground, which we call a risk reduction strategy as opposed to a risk minimisation strategy." The government

chief medical officer, Sir Kenneth Calman, in similar vein said there are "no grounds at this stage for thinking the likelihood of BSE in sheep is any greater now than in the past."

Significant breakthrough in diagnosis of human BSE; 3 September 1998

The British Labour government may be forced to carry out mass screening for nvCJD (new variant Creutzfeldt-Jakob Disease), the human form of BSE (Bovine Spongiform Encephalopathy) or mad cow disease, which became endemic in the country's cattle herd during the 1980s. Twenty-seven people in Britain have now died from nvCJD, which progressively destroys brain function leaving the patient blind, mute and incapacitated.

The prospect of mass screening follows publication of a research letter in the August 29 issue of the medical journal, *The Lancet*. The article reported the work of Dr John Zajicek and his team at Derriford Hospital, Plymouth, where a patient, Tony Barrett, had died from nvCJD.

Barrett, a coast guard, first developed symptoms of human BSE in May 1996 and died in June this year. In September 1995, eight months before the onset of the disease, Barrett underwent an operation to remove his appendix at Torbay Hospital in Devon. After his death, doctors examined his appendix which had been routinely stored by the hospital, and found evidence of PrP (prion proteins, the infectious agent for the disease) in the lymphoid tissue. They used a procedure developed by scientists in Holland 20 years ago, which detects scrapie (another Transmissible Spongiform Encephalopathy) in the tonsils of sheep aged over 10 months.

The Lancet article points out that these findings are the first demonstration of PrP in tissue in humans during the incubation period of nvCJD. It also points out that the involvement of tissue in the gut, before clinical onset of the disease, is in keeping with an enteric route of entry for the disease agent--i.e., through the consumption of infected food.

This discovery is extremely significant, as it means that tests can be carried out before clinical symptoms of nvCJD are displayed. Until now confirmation of the disease could only be made after a post-mortem examination of the victim's brain.

Hospitals routinely collect sample tissues from the 44,000 appendectomies and 800,000 tonsillectomies carried out each year. *The Lancet* has urged the government to carry out a large scale-screening programme of all hospital specimens dating from the onset of the BSE epidemic in cattle. This would provide data on the number of people incubating the infectious agent and at risk of developing the disease. The figures would still not be conclusive, however, as it is not known at what stage of the incubation period the lymphoid tissue becomes involved, and whether this inevitably results in the development of nvCJD.

Following publication of these findings Sir Kenneth Calman, the government's chief medical officer held a meeting with Dr James Ironside of the Edinburgh CJD Surveillance Unit and representatives from Derriford hospital. Calman stated that there would be no immediate change in health controls, but that tests would be performed on other appendix samples, "to see what it means".

Ministers have subsequently approved a review of thousands of relevant laboratory specimens and have stated that should one more case be identified, hospitals will begin to screen all patients awaiting tonsil or appendix operations.

Dr Stephen Dealler, a scientist working in the field, told the *World Socialist Web Site* that it has been known since 1997 that the test used by Dr Zajicek was effective in detecting nvCJD. Yet there has been no explanation of why a similar investigation had not been proposed earlier by the government Spongiform Encephalopathy Advisory Committee (SEAC). It raises the danger that similar work has been undertaken by government scientists and not reported.

It is known that the disease can be passed on through blood, and at least one human BSE victim is known to have been a blood donor. Dr Dealler raised the possible contamination of blood supplies four years ago, but regulations were not changed until earlier this year. The use

of white blood cells from British blood donors is now banned. Instead, supplies are imported from abroad.

The publication of the research letter in *The Lancet* raises several immediate issues.

Surgical instruments used on known, or even suspected, human BSE patients must be destroyed, as the infectious agent is resistant to sterilisation. As Tony Barrett was not displaying symptoms of nvCJD at the time of his appendix removal, it is likely that the surgical apparatus used during his operation will have been used in other procedures, posing the risk of cross-contamination. Similar dangers are present with other operations like corneal transplants.

More broadly, Labour's approach to BSE and its impact on human health has been a continuation of that taken by the previous Tory government. They have claimed that the danger is minimal and has largely passed. Now the possibility exists of determining the incidence of nvCJD in the human population. It is known that approximately half the British population has a genetic make-up that makes them susceptible to infection.

This has posed the dilemma of how to proceed in the case of positive testing. Human BSE is a disease for which there is as yet no known cure. Diagnosis is the equivalent of a death sentence. In addition, fears have been voiced that those incubating the disease could find themselves in a "legal limbo"--prevented from taking out insurance policies and bank loans--and turned into social pariahs. Yet the withholding of a positive result would further endanger public health. Researchers have already begun preparing procedures and ethical rules for the initial investigations, to be funded by the Medical Research Council.

These problems notwithstanding, the ability to screen for nvCJD is an important breakthrough. It must not be allowed to be sacrificed on the altar of economic and political expediency as has happened all too often in the history of this terrible disease.

An exchange of letters on the Mad Cow Disease (BSE) crisis; 23 July 1998

The following e-mail to the editor of the WSWS *from Professor J.W. Almond, a member of the British government's Spongiform Encephalopathy Advisory Committee (SEAC0, concerns the coverage on the* WSWS *of the BSE, or Mad Cow Disease, crisis.*

Some of Professor Lacey's claims are not supported by hard evidence and are wildly speculative. For example the over thirty months scheme does not "hide" cases. It merely dictates that only animals below that age are eaten. Anything over that age can still be used for milk and for breeding (and hence stays on the farm) but when the animal gets to the end of its productive life it is slaughtered and incinerated (previously such animals were also eaten). The farmer is compensated for the animal whether or not it develops BSE.

There is no evidence to support the assertion that BSE is spread from contaminated grassland. There is much evidence that supports the view that it is not.

Please check your facts with independent scientists before posting on the www. A balanced view is more respectful to your readers.

Jeff Almond
Member of SEAC
25 Jun 1998

Barbara Slaughter replies on behalf of the *WSWS*

The explanatory footnotes have been added for publication.

Dear Professor Almond:

Thank you for your letter to the *World Socialist Web Site* on the important question of the BSE crisis.[1] You write that some of Professor Lacey's claims "are not supported by hard

evidence and are wildly speculative. You specifically object to the allegation that the Over-30-Months-Scheme "hides" cases of BSE and that BSE is spread from contaminated land.

Professor Lacey is capable of speaking for himself on the scientific basis of his views, but the issues you raise are crucial. They revolve around an understanding of the extent to which BSE continues to threaten human health. Allow me to cite the grounds for our own concerns.

The Over-30-Months-Scheme is aimed at eradicating cattle over this age from the food chain. Yet no scientific case has been presented why cattle under 30 months represent no danger to human health, but do so above that age. As the incubation period for BSE is up to four years, we do not know how many animals entering the human food chain are incubating the disease.

An article in the June 13, 1998 issue of *New Scientist* reported findings of an investigation into subclinical cases of BSE in Swiss cattle, which showed that 4.5 per thousand apparently healthy animals from herds where BSE had occurred were carrying the disease. The article calculates that if this pattern holds true for the British herd, the number of cattle carrying the disease here could be as many as 450,000 for last year alone.

Professor Collinge expressed serious concerns about this matter in his evidence to the Labour government's BSE Inquiry.[2] He pointed out that Clare Tomkins, who died from Human BSE, had been a strict vegetarian since 1985, which means that she must have been exposed to the disease at its preclinical stage. Such considerations make him extremely anxious that we are going to see a lot more cases. He told the inquiry that he was very concerned about the question of subclinical disease, adding that it had always surprised him that out of a herd of one hundred cows only three or four animals would succumb. He thought it likely that only a small proportion of animals infected actually went on to develop the clinical symptoms.

Regarding the question of danger from the environment, I am not aware of any tests that have been conducted to see whether BSE can be spread from contaminated grassland. Unfortunately you do not cite the evidence on which you base your own assertions in either case.

Given what we do know about BSE-type diseases, it seems advisable to err on the side of caution. Experiments in this country and in America have shown that prion proteins, widely held to be the infective agent, are incredibly resistant and can survive for long periods in the ground. In Iceland, in the 1950s, the authorities attempted to eradicate sheep scrapie by slaughtering all the infected flocks and introducing scrapie-free stock. Within a few years the disease had returned, and it was thought that the infectivity had persisted in the environment.

Similar experiments on BSE-infected cattle have not been carried out in this country. The Ministry of Agriculture, Fisheries and Food has refused to provide epidemiological data to Dr Stephen Dealler and other scientists, including members of Spongiform Encephalopathy Advisory Committee (SEAC),[3] and therefore there is little known about the distribution of BSE. We know that cases are occurring in herds that have already suffered infection. This indicates maternal transmission, but infection from contaminated ground--and other environmental sources--cannot be ruled out. It is an area where research is urgently needed.

Your letter also raises another important question--how to proceed on such matters in the absence of "hard evidence". We would contend that safeguarding human health must always be the priority. This has not been the case with BSE. In fact, the absence of "hard evidence" was cited for years as proof that no threat existed.

Even when dangers became apparent, these were deliberately downplayed to protect the profits of the beef industry. Science and scientists were manipulated by the government and the agri-businesses to present as "fact" that which suited their own agenda. Research into BSE was stopped or deliberately held-up. Those who questioned the government's line were vilified, moved or sacked.

The BSE crisis has highlighted the real dangers to scientific "independence" when research and opinion is suppressed for commercial reasons. As a member of the government

Spongiform Encephalopathy Advisory Committee, you gave first-hand experience of this manipulation in your evidence to the Canterbury Mills Inquiry[4] in February last year. You explained how SEAC arrived at their assessment of the species barrier between cattle and humans as "one to a thousand". You said that you personally believed it should have been "one to one", but said "If we had used one to one, we would have had to live with the consequences that eating beef was dangerous. So we reluctantly arrived at a consensus on the basis of evidence that does exist--a best guess.... There were huge economic implications if we were out one way or the other."

The government used this statement to claim that their scientific advisors had assured them that beef was safe and SEAC went along with this. When economic concerns outweigh concern for human health, there can be no genuine scientific independence.

Meeting discusses new book on Mad Cow Disease epidemic in Britain; 15 May 1998

Some sixty academics, medical students, youth and workers attended an April 28 public meeting at the West Yorkshire Playhouse in Leeds to launch the book *Human BSE--Anatomy of a Health Disaster*. This is a record of the Workers Inquiry convened last year by the Socialist Equality Party of Britain into the epidemic in Britain of BSE, often called mad cow disease.

John Middleton's son, Matthew Parker, died of the human form of BSE. At the Leeds meeting, Middleton gave a moving account of how Matthew died of the disease at the age of 19. In December 1995 John noticed that his son, a six-foot, eight-inch tall, healthy and outgoing young man, had become very introverted. His health deteriorated and by August the following year, his speech was slurred and he could not keep his balance.

"I remember taking Matthew shopping in town. He couldn't even stand. I had to hold him up. People were staring, they thought he was drunk. When I got him home I rang for an ambulance and got him into hospital. Eventually the consultant said he was 99.9 percent certain it was human BSE... I was going to lose my son and there was nothing I could do about it."

In March, 1997 Matthew fell into a coma and died. John described the devastating effect this had on himself and his family. He urged everyone to "read this book to learn the truth."

Professor Richard Lacey is a well-known microbiologist who has studied BSE since 1989. He told the meeting, "Unfortunately, we are still not getting at the truth. Anyone who raises issues becomes the target of malice and diversions, frequently mediated by a corrupt media, almost as if the health of the nation is totally subservient to the interests of the beef industry."

Lacey said that statistics claim to show a dramatic drop in the incidence of BSE, but this is due to the government policy of killing all beef cattle at the age of thirty months, before they show clinical signs of the disease. Compensation paid to farmers has been cut by over 50 percent, which discourages reporting of cases on their farms.

BSE is now established in the British national herd and is being spread by vertical transmission, from cow to calf, and by horizontal transmission, through animal-to-animal contact and through the environment. The whole population of Britain has been exposed to infected beef and beef products since the early 1980s, when BSE first became widespread.

Research shows that approximately one third of people are genetically susceptible to infection. There have been twenty five confirmed deaths from the disease, and there could be many more in the future. It is not possible to establish how widespread the disease might be, because the incubation period in humans could be twenty or more years

Lacey concluded by indicting the Tory and Labour Party governments and those who have colluded with them: "This is a complete nightmare--a complete mess. Their compromise tactics have not assured the public. They are going to damage human health and they are going to cause havoc to the farmers."

Barbara Slaughter, a member of the Central Committee of the SEP, led the investigation into the BSE crisis on behalf of the party. Addressing the Leeds meeting, she pointed out that the March 1996 announcement that the death of 10 people from a new variant of the rare condition Creutzfeldt-Jakob Disease (nvCJD) was probably due to eating BSE-infected beef had provoked an outcry. Beef sales plummeted and a worldwide ban was imposed on the export of British beef.

The then-Conservative Party government responded by launching a chauvinist attack on Europe to try to get the ban lifted, and insisting that British beef was safe. This attempt to conceal the problem lost valuable time in elaborating a strategy to fight this disease.

"Once the link between human BSE (nvCJD) and animal BSE was established, any government concerned with public health would have warned of the danger of eating British beef and the possible contamination of European and other herds. They would have called for international collaboration to investigate the mechanism of transmission and seek a cure, and they would have provided the necessary finance. Since the Labour government took office, they have done none of these things. They continue to argue that British beef is safe. Both governments are driven by the same imperatives--the needs of the profit system.

"The Socialist Equality Party convened an independent Workers Inquiry to bring out the truth about the economic, social and scientific questions posed by the crisis. We approached the investigation from a definite standpoint, that of the defence of ordinary working people, whose lives, health and livelihoods are threatened by the unsafe production of food. We do not subordinate the search for truth to the preservation of the profits of the beef industry, nor the political fortunes of its defenders."

In the discussion that followed, Malcolm Povey, a lecturer in the food science department at Leeds University, agreed that the profit system was the source of the crisis. He said that about five years ago, two large food companies had written to Leeds University saying that unless Professor Lacey's activities were curbed, they would not fund any research.

Sid Jenkins, the head of an Animal Husbandry department at a local college and former inspector for the Royal Society of Prevention of Cruelty to Animals, said that he had raised concerns in the1970s over diseased and drug-laden domestic animals entering the human food chain through the rendering process.

Asked about the nature of the BSE infection, Professor Lacey explained that the current theory was that it probably arose in the 1960s or 1970s as a result of a rare disease that occurs occasionally in cows. These rare occurrences would have been magnified many times over because of the increasingly widespread practice of recycling cattle remains (some of which were infected) into animal feed.

Damning testimony in government inquiry into BSE crisis; 27 March 1998

The official government inquiry into the crisis involving BSE (Bovine Spongiform Encephalopathy), sometimes called mad cow disease, and its human form, new variant CJD (Creutzfeldt Jacobs Disease), began in London on Monday, March 9, shortly after the twenty-fourth British fatality from the disease was reported.

New variant CJD is also known as Human BSE. It is impossible to predict whether the final death toll from Human BSE will number in the hundreds, thousands or hundreds of

thousands. However, testimony from relatives of the victims, scientists and others bears witness to a potential health disaster of major proportions.

On the first day of the inquiry Roger Tomkins, whose daughter Clare was diagnosed with Human BSE in July 1997, gave a moving statement. Tomkins described the progress of the disease. Clare first became ill in November 1996. The symptoms rapidly developed: depression, double vision, unsteady gait, weight loss, anxiety and fear, spasms, hallucinations, incontinence, aggression, loss of speech, and recently, inability to swallow.

He and his wife struggled to care for their daughter at home. His private insurance company refused to contribute to the cost of care because Clare was terminally ill. This had a devastating effect on the whole family. His wife is now seriously ill.

Colin Whitaker, a veterinarian from Ashford in Kent, told how he first identified the disease in a dairy cow in 1985. Other cases occurred and he sent specimens to the local Veterinary Investigation Centre, where Carl Johnson identified the presence of a condition typical of spongiform encephalopathy.

Whitaker and Johnson concluded they were dealing with a new "Scrapie-like syndrome" in cattle. (Scrapie is a disease of sheep.)

As Whitaker told the inquiry, he and Johnson were preparing to deliver a paper to the British Cattle Veterinary Association when Johnson received instructions from his employer, the Ministry of Agriculture, Fisheries and Food (MAFF), that the term "Scrapie-like" was not to be used. This revelation by Whitaker, indicating a cover-up at the earliest stages of the BSE crisis by the then-Tory government, was not probed by the panel, even though many experts believe the disease could have been stamped out had a proper investigation been carried out early on.

After his appearance before the inquiry panel, Whitaker told a journalist from the *World Socialist Web Site* he thought MAFF at first instigated the cover-up to protect the sheep trade, which would have been seen as the source of the outbreak of disease among cattle.

Professor Roy Anderson of Oxford University's Centre for Infectious Diseases explained how MAFF had obstructed his investigation into BSE. Between 1989 and 1991 he had applied to them, in a bid to understand the growing epidemic, but was denied access to BSE data.

Key testimony was provided by Professor Richard Southwood, who was chairman of a committee set up by the MAFF in April 1988 to examine the implications of BSE for humans and animals. The Southwood committee was established two years after the disease was first identified and after thousands of infected carcasses had gone into the human food chain. None of the members of the committee were experts in the field of transmissible encephalopathies, and no such experts were ever co-opted.

MAFF made it plain they would not welcome any recommendations requiring an increase in public expenditure. Sir Donald Acheson, the government's chief medical officer, told Southwood that all that was required was "a very brief note with recommendations."

Southwood acted throughout on the principle that the least possible measures should be taken, within the bounds of what might appear reasonable. MAFF banned the use of ruminant feed (feed pellets made from the ground-up carcasses of sheep and cows) for cattle and sheep, but did not ban its use for pigs and poultry. This omission was welcomed by the beef industry, which needed an outlet for the huge amounts of meat and bone meal which it could no longer sell as feed for cattle and sheep.

Without any evidence whatsoever, the Southwood report assured the public, "It is likely that cattle will prove to be a 'dead-end host' and most unlikely that BSE will have any implications for human health."

When asked at the inquiry whether MAFF ever considered the possible danger from infected cattle which had not yet shown clinical signs of disease, Southwood said they had, "but it meant that the whole national herd would have to be destroyed," so the issue was dropped.

The Southwood committee claimed that by 1996 the incidence of BSE would be very low and would subsequently disappear. In attempting to explain the failure of BSE to die out, Southwood places the blame on farmers, claiming they continued to use infected cattle feed. He insists that the number of infected animals is declining and the problem will soon go away. The evidence presented to the inquiry by Professor Richard Lacey, a microbiologist from Leeds, refuted this claim. He insists that BSE is now endemic to the UK cattle herd, a fact that is concealed by the government's policy of culling all beef cattle at 30 months, before the onset of BSE symptoms.

Professor Lacey told the inquiry he had video evidence that farmers were carrying out unsanctioned burials of infected carcasses "on a massive scale," in order to win "BSE-free" accreditation for their herds. He warned that the uncontrolled dumping of carcasses might be to blame for the recent spate of E coli food poisoning outbreaks, which have claimed several lives.

E coli, salmonella and BSE might be spread from shallow cattle graves by birds and small animals, or enter the water system through streams, he said. He called for legislation to ban do-it-yourself burials.

Professor Lacey was one of the first scientists to raise the spectre of a "human mad cow disease" and was the first to publicly advocate the mass slaughter of infected herds. He told the inquiry that effective measures to deal with BSE were delayed by several years by government ministers and scientists who sought to reassure the public that beef was safe, rather than face up to the magnitude of the problem. He said the House of Commons Agriculture Committee had attempted to portray him as "deranged" in 1990 when he warned of the dangers of CJD infection through the consumption of infected beef.

Commenting on the actions of government over the past 13 years, Lacey said, "The main thrust of the controls has been cosmetic, to appear to be taking action to restore public confidence.... The science was being manipulated to apply to what was politically convenient. Even if the problem of contaminated feed is solved, BSE can be passed on from cow to calf or through the infection of pasture land."

He warned that the full death toll from Human BSE may not be known for decades, as its incubation period could be as long as 50 years.

The following day an emphatic denial of Lacey's claims by Labour's agriculture minister, Jack Cunningham, was broadcast on BBC One's "Question Time." Unfortunately for Cunningham, Channel Four News had earlier that evening broadcast the video footage of cow burials referred to by Lacey.

The inquiry is due to last for 18 months and is restricted to the period before March 20, 1996, when the link between BSE and new variant CJD was established. The chairman has stressed that no organisation or individual will be blamed for the crisis. But every day full transcripts are being placed on the internet. This is the first time that the proceedings of such a body have been accessible all over the world, which will make it more difficult for the truth to be covered up.

New book on BSE widely praised; 27 March 1998

Human BSE/CJD--Anatomy of a Health Disaster details the findings of last year's Workers Inquiry convened by the Socialist Equality Party of Britain into the fatal illness contracted from eating infected beef. It has been praised for its honesty and integrity in uncovering the truth about this public health disaster.

Hundreds of copies have been sold since the book was launched on February 12. The families of victims of Human BSE/new variant CJD have been particularly supportive. John Middleton, the father of Human BSE victim Mathew Parker, described *Anatomy of a Health Disaster* as "a book that tells the real truth about Human BSE and the heartache and suffering this horrendous disease causes. Having to watch our children and loved ones dying, the pain is immeasurable. This book tells it how it really is."

Middleton took part in a book signing at Waterstones bookshop in Sheffield, which was covered extensively by local press and TV, including a five-minute feature on Yorkshire Television's *Calendar* news programme and reports in the *Yorkshire Post* and the *Doncaster Star*. He will speak at a public meeting to launch the book in his hometown of Doncaster and a number of other relatives have agreed to do the same in other areas.

The *Doncaster Courier* carried a front-page article under the headline, "Book will continue fight for the truth: Father to speak out on CJD horror." *PHA News*, the newsletter of the Public Health Alliance, has issued a forthcoming publications announcement that says the book "contributes towards an understanding of all the factors involved in the BSE/CJD crisis and provides a basis for its resolution.... It considers BSE to be the direct result of a political setup which protects the interests of big business at the expense of the social interests of working people." *PHA News* announced it would carry a full review of the book in its next issue.

Frances Hall, mother of BSE victim Peter Hall, is a leading spokesperson for the Human BSE Foundation, a support network set up by victims' families. She writes of the new book:

"I would like to thank the Socialist Equality Party for setting up a Workers Inquiry at a time when the Conservative government was refusing to allow one. The resulting book sets out the facts in an easy to read manner and will, I hope, make plain how disaster can result from government's putting the interests of profit before the health and safety of the population.

"I trust that some good will result from the lifetime of pain that families like mine now have to face, and that the deaths of our loved ones will prevent a tragedy like this ever happening again."

Gerard Callaghan, brother of Human BSE victim Maurice Callaghan, writes:

"This book is important. It comes as the end result of a thorough and earnest inquiry into the causes of Human BSE and the chain of events that led to the creation of BSE and the deaths of a growing number of young people, amongst them my wonderful brother Maurice; of its human manifestation.

"Its importance is clear: the submissions to the inquiry range from the fields of microbiology, public services, scientific research and politics, both national and international. All are underpinned with the views of those who have lost most, the families of the Human BSE dead. In total they represent a critical mass in the debate and their views are essential.

"The Inquiry's findings focus on what is perhaps the most overlooked aspect to the crisis--that the deaths are the result of the way in which we feed ourselves and how we have allowed the importance of human health to be eclipsed by the drive for profit in the food industry.

"Scientific research is vital, as the inquiry points out. However, if the market remains unaltered in a fundamental way, we may well see many such tragedies in the future. Every death from Human BSE represents a tragedy of inestimable consequence.

"This book is unsettling, as it should rightly be. I found the submissions from other families deeply distressing, each echo of pain and anger mirroring the deep despair felt most strongly in my own home in the dark days when the curtain of grief suddenly parts and we glimpse a brief view of just what has happened here. The inquiry, in offering such a platform for the families, has placed our views at the core of the matter. I thank it for doing so. Without such a narrative, unsettling though it is to relate, the story is incomplete in every way.

"There are many aspects to Human BSE, the most disgraceful food/health debacle of modern times. The Workers Inquiry has outlined clearly the parameters of the debate. A heavy responsibility rests on all of us to develop its findings as we continue the search for the truth."
Stan and Pat Mellowship's daughter, Donna, died this year from Human BSE. Stan Mellowship writes:
"When we first received the book, I sat and read it right the way through that night, and it took quite a bit of time to read. It's very, very good. It's strong and to the point. It should go out to everybody because it does open your eyes to a lot of things. The time you must have spent on this inquiry and the investigation that you made, I just take my hat off to you, I really do. The book is such easy reading--plain English. Yes, a brilliant book.
"It needs to go into the schools to make the kids aware, because the younger children don't stand a chance, do they? Beef is just banged on a plate. The parents need to be told. They are not only killing my Donna's generation and my generation, they are killing the younger generation coming up. You should get the book into doctors' surgeries. It should go into the medical journals, chemists, everybody. At £6, it's a price that everyone can afford."
Pat Mellowship, Donna's mother, shared her husband's enthusiasm: "The book is a real eye-opener. It's very, very good. It's written so that everyone can understand. Some of the books you pick up, they are all long words, but you don't get that in here. Every household should have this book to make them aware about BSE/nvCJD."
Professor Richard Lacey, a leading expert on BSE, made a submission to the Workers Inquiry. He has campaigned to expose the cover-up of the BSE/CJD crisis for the past 10 years and provided evidence about the dangers from BSE in the recent $8 million libel suit against Oprah Winfrey in the United States. He writes:
"I warmly welcome the publication of this book. It is the first serious attempt to get at the root of the problem and identify the source of the deception. It has no political axe to grind and I urge everyone to read it and come to their own conclusions.

"The conduct of the Workers Inquiry was entirely satisfactory and its findings are excellent. I support them enthusiastically. Certainly the recommendations on page 121 should be implemented immediately and I would advise that these proposals should be put into the hands of Lord Justice Phillips and the government inquiry into BSE/CJD."

Secrets and lies in Europe; 3 May 1997

Mad cow disease is perceived as a British problem. But there are signs that the infection has spread silently across the Continent and may now be about to erupt Before 1996, supermarkets in Brussels that sold British beef would proudly advertise the fact on large signs over their meat counters. Since the scare over mad cow disease put an end to British beef exports, the signs have promoted Belgian beef as a safe alternative, pure and trustworthy, and free from bovine spongiform encephalopathy.

But there is growing evidence that shoppers in Brussels, and all over Europe, are being deceived. Veterinary experts are claiming that because countries which believe they have no indigenous BSE take few precautions against it, unknown numbers of BSE-infected cattle have entered the human and animal food chains.

They fear that the infection has been seriously underreported in Europe and may be quietly spreading throughout the continent. "Of course we have had [unreported] cases of BSE in Belgium," admits Emmanuel

Vanopdenbosch, head of BSE at the National Institute for Veterinary Research in

Brussels and chairman of ...

Article preview; 27 July 1996

Editorial : A case of justice only half done - ANGER is the only proper response to last week's ruling in Britain's High Court which found that there had been negligence in the use of human growth hormone to treat "short" children. Anger over the sheer incompetence of the Medical Research Council and the Department of Health which ran the programme. And anger because the High Court has still not produced justice.

Anger is the only proper response to last week's ruling in Britain's High Court which found that there had been negligence in the use of human growth hormone to treat "short" children. Anger over the sheer incompetence of the Medical Research Council and the Department of Health which ran the programme. And anger because the High Court has still not produced justice.

Between 1959 and 1985 some 2000 children were treated with human growth hormone extracted from the pituitary glands of cadavers. Some of that hormone was contaminated with the agent that causes Creutzfeldt-Jakob Disease.

As a result, 16 people have already met a horrible death and, as there is no test for the CJD agent, the remainder must live in constant fear.

The judgment revealed shocking mismanagement. Warnings about possible risks of contamination were ignored. Standard precautions were not taken: after the pituitaries were collected, they were put in ...

Farmers grow ever more desperate as the world shows no appetite for British beef; 6 April 1996

Editorial : It could be you . . . - TWO weeks after the announcement that there may be a link between bovine spongiform encephalopathy in cattle and Creutzfeldt-Jakob disease in humans, Britain is still deep in crisis.

TWO weeks after the announcement that there may be a link between bovine spongiform encephalopathy in cattle and Creutzfeldt-Jakob disease in humans, Britain is still deep in crisis. Farmers grow ever more desperate as the world shows no appetite for British beef.

The government, meanwhile, is showing distinct signs of being unsteady on its feet. The latest word from Prime Minister John Major and his health secretary Stephen Dorrell is that British beef is "safe to eat on any normal recognition of the word" or "safe in the common usage of the term". Fears are now blamed on press, the Opposition and nasty foreigners. But how safe is beef really? And how seriously is the government taking into account the way "common" people assess risk?

On the first question, all that can be said is that the dangers of eating beef are probably very low, but no one can say ...

Ten deaths that may tell a shocking tale; 30 March 1996

BSE may have killed 10 young people, who probably acquired the disease after eating beef in the middle to late 1980s

DEEP in the Berkshire countryside, sealed off from the outside world, is a prion factory. Unable to get enough prions from natural sources, researchers at the Institute of Animal Health in Compton are making their own, using genetically engineered bacteria. They hope that their studies of the structure of these lethal proteins will provide the key to how they cause such devastating diseases as BSE and Creutzfeldt-Jakob disease. In the early 1980s, the manufacturers of high-protein animal feeds had prion factories of their own, in the form of rendering plants used to turn sheep carcasses into cattle-cake. Unfortunately, some of those sheep suffered from the

prion disease scrapie, and the rendering plants turned out enough prions to start a BSE epidemic that has killed 158 000 British cattle.

Brain disease drives cows wild; 5 November 1987

Vets at the Ministry of Agriculture have identified a new disease in cows that is causing dairy farmers some consternation. The fatal disease, which they have called bovine spongiform encephalopathy, causes degeneration of the brain. Afflicted cows eventually become uncoordinated and difficult to handle. *The first case was reported in 1985. Now there are 92 suspected cases in 53 herds, mostly in the South of England. So far 21 cases in 18 herds have been confirmed. All are Friesian/Holstein dairy animals.*

Gerald Wells and his colleagues at the Central Veterinary Laboratory in Weybridge, Surrey, describe the symptoms and pathology in the current issue of The Veterinary Record (vol 121, p 419).

No one yet knows the cause of the disease but there are some similarities with a group of neurological diseases caused by the so-called "unconventional slow viruses". This group of progressive diseases includes scrapie in sheep and goats, chronic wasting disease in mule deer and transmissible mink encephalopathy. In humans kuru and Creutzfeldt-Jakob disease, both fatal neurological diseases, come into the same category. The precise nature of the agents causing this group of diseases is a matter of intense debate but all are infectious .

Like scrapie and the other diseases, bovine spongiform encephalopathy is insidious and progressive. A farmer is unlikely to suspect that a cow has the disease until it has almost run its course. Previously healthy animals become highly sensitive to normal stimuli, they grow apprehensive and their movements uncoordinated. In the final stages the cows may be frenzied and unpredictable and have to be slaughtered.

At autopsy, Wells and his colleagues found that some areas of the brain were full of holes, giving it a spongy appearance. The pattern of holes shows some similarity with that in the other unconventional encephalopathies. In all these diseases an important diagnostic feature is the presence of proteinaceous fibrils seen in brain extracts in the electron microscope. No one knows for certain what the fibrils are--whether they are the agents of the disease, a type of subviral particle, as some researchers suggest, or are a product of the disease. The veterinary researchers analysed the brain tissue from cows that died from the disease and found similar fibrils. Brain tissue from healthy cows did not contain fibrils.

At the moment researchers at the Central Veterinary Laboratory are keeping an open mind on the cause of the disease. *If it is not a scrapie-like agent it might be something to do with the genetics of Friesian cows. Another suggestion is that contaminated food might be to blame.*

"It is too early to come to conclusions," said a spokesman at the Ministry of Agriculture. "It might be caused by toxic products, or food, or it might be genetic."

According to Richard Kimberlin, of the AFRC/MRC Neuropathogenesis Unit in Edinburgh: "The similarities are enough to make us think that it's in the scrapie family, but without evidence of transmission it's impossible to say anything more certain". Scientists at the Neuropathogenesis Unit will look for evidence of transmission in experiments on mice, while Wells and his colleagues try to transmit the disease in cows. It will take at least two years of experiments before transmission can be proved.

What is certain is that the number of reported cases is increasing rapidly. Not all reports will turn out to be bovine spongiform encephalopathy. Farmers and vets might just be getting better at recognising symptoms. In the past farmers probably got rid of nutty middle-aged cows without thinking too much about it. If the disease turns out to be transmissible then it might spread to other breeds of cows. Many countries ban the import of sheep from areas where scrapie occurs. In the US, consumer rights groups won a ban on the purchase of meat from scrapie flocks because no one could rule out absolutely the possibility of transmission to humans. If bovine spongiform encephalopathy turns out to be infectious, it could cause problems out of proportion to the number of cases.