

The British Government's Response to the "Mad Cow" Epidemic

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Bovine Spongiform Encephalopathy (BSE), colloquially called Mad Cow Disease, is a relatively new disease which struck the UK in the 1980s and 1990s. Despite having a low body count, and affecting mostly cows, this disease captured the imagination and news across Europe. BSE touched many parts of life in Europe but particularly affected Britain. It spread from being an agricultural anomaly to a widespread disease in British herds to a crisis in the British agricultural industry, and finally to affecting young Britons. The British government, under the advice of the Ministry of Agriculture, Fisheries, and Food (MAFF), is widely thought to have failed the British public during this epidemic. They disregarded and suppressed medical advice, and failed to take sufficient regulatory action for nearly 10 years. This essay will examine what the government did and did not do during this epidemic and how they were forced into action by the British public and the European Union (EU). The scholar Andrew Webster has determined three phases of the BSE crisis. The first, running from 1986 to 1996 when BSE was considered an agricultural issue, the second from 1996 to 2000 when BSE was considered a risk to human health, and the third from 2000 to the present when the crisis of BSE fades.¹ This essay will focus primarily on the first period, and how it transitioned into the second period in 1996. While BSE continues to be present, it is no longer an acute crisis. However, the lessons which can be learned from British inaction speak to continuing structures of governance and present lessons as to how public health campaigns can be better run. This essay will argue that the British government initially responded inadequately to the BSE epidemic due to their allegiance to the cattle industry. However, they were subsequently forced to increase public health restrictions as a result of domestic and international outcry.

¹ Andrew Webster, Conor M.W. Douglas, and Hajime Sato, "BSE in the United Kingdom," In *Management of Health Risks from Environment and Food*, (Dordrecht: Springer Netherlands, 2009), 221.

Important Acronyms

vCJD	Variant Cruzfield Jacobs Disease
MAFF	Ministry of Agriculture, Fisheries, and Food
SWP	Southwood Working Party
BSE	Bovine Spongiform Encephalopathy
MBM	Meat and Bone Meal Feed

In historical accounts, the BSE crisis is understood to have been exacerbated by an initial failure to act by the British government. This is widely understood by all authors cited in this paper, with the exception of Richard Packer. These authors are critical of the government's lack of response, pointing to how the government responded with the interests of industry and the economy, rather than public health.² Additionally, the bulk of historical attention on this subject has been directed at either Webster's phase one or phase two, with particular emphasis on the policy responses of the government. This is likely due to the professional backgrounds of those interested in the subject, with many, such as Packer, working in government.³ This research aims to discuss how the transition from phase one to phase two occurred. In essence, discussing how the British government was forced to take increased policy action regarding BSE from 1986 to its peak policy actions in 1996.

BSE is an incurable neurological disorder affecting cattle.⁴ It causes the degeneration of brain cells.⁵ It is linked in humans to the variant Creutzfeldt Jacobs Diseases (vCJD).⁶ It has a

² Patrick Van Zwanenberg and Erik Millstone, *BSE: risk, science and governance* (Oxford: Oxford, 2005) 195.

³ Richard Packer, *The Politics of BSE*. (Basingstoke: Palgrave Macmillan, 2006) 246.

⁴ Matthias Beck, Darinka Asenova, and Gordon Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," *Public Administration Review* 65, no. 4 (2005): 398, <http://www.jstor.org/stable/3542637>.

⁵ Kevin E. Jones, "BSE, Risk and the Communication of Uncertainty: A Review of Lord Phillips' Report from the BSE Inquiry (UK)," *Canadian Journal of Sociology* 26, no. 4 (2001): 655, <https://doi.org/10.2307/3341496>.

⁶ Jones, "BSE, Risk and the Communication of Uncertainty: A Review of Lord Phillips' Report from the BSE Inquiry (UK)," 655.

long incubation period, often several years.⁷ Once symptoms manifest the progression of the disease is rapid and always fatal.⁸ The origins of BSE are questioned. Some scientists believed that it developed spontaneously.⁹ Others believe that it is a mutation of Scrapie, a disease endemic to British sheep flocks.¹⁰ It is believed that it spread through feed given to cattle which contained meat and bone meal (MBM) of sheep or other cattle which had BSE.¹¹ The addition of MBM was done as a cheap form of protein, and cost-lowering methods meant that the feed was processed at a lower temperature which allowed the BSE agent to survive.¹²

The first case of BSE was recorded in November 1986.¹³ Between 1986 and 1996 there were 160,000 cases of BSE recorded in Britain.¹⁴ This led to the slaughter of 3.3 million cattle and economic losses of 3.7 billion pounds.¹⁵ By 1994, over 51% of cattle farms had been affected by BSE, and cases were thought to have likely been higher due to long incubation periods.¹⁶ BSE spread to humans, in the form of vCJD. The first case of vCJD was recorded in 1992.¹⁷ However,

⁷ Jana Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," *Journal of Public and International Affairs* Princeton, N.J., 10: (1999): 164, https://ciaotest.cc.columbia.edu/olj/jpia/v10_1999/v10_1999k.pdf.

⁸ Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 164.

⁹ Patrick Van Zwaneberg and Erik Millstone, "'Mad cow disease' 1980s-2000: how reassurances undermined precaution," In *The Precautionary Principle in the 20th Century*, (Oxfordshire: Routledge, 2002), 171.

¹⁰ Maxime Schwartz, *How the Cows Turned Mad*, Trans. Edward Schneider (Berkley: University of California Press, 2001), 201.

¹¹ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 399.

¹² Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 399.

¹³ Webster, Douglas, and Sato, "BSE in the United Kingdom," 222.

¹⁴ John R. Fisher, "Cattle Plagues Past and Present: The Mystery of Mad Cow Disease," *Journal of Contemporary History* 33, 2 (1998): 216, doi:10.1177/002200949803300202.

¹⁵ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 396.

¹⁶ Richard Lacey, *Mad Cow Disease : the History of BSE in Britain*, (St. Helier, Jerse : Cypsela Publications, 1994), 2.

¹⁷ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 402.

the Phillips Report suggested that there had been earlier cases of vCJD that had been concealed.¹⁸ By the end of the BSE crisis, there had been almost 100 deaths of British residents from vCJD.¹⁹

Despite the seriousness of this disease, the British government was slow to respond and enact restrictions to slow or stop the flow of BSE and vCJD. The response to the BSE crisis was driven by MAFF and their sub-committee the Southwood Working Party (SWP).²⁰ MAFF was in charge of advising the British government on policy and investigating the BSE agent from 1986 to 1996.²¹ The SWP, established in May of 1988, had a mandate to conduct a risk assessment for humans and determine overall government policy regarding BSE.²² MAFF and the SWP have received a variety of complaints regarding their conduct during the BSE epidemic. These include media censorship and control over research, disregarding human implications, and dual responsibility to public health and industry.

The first way that MAFF was criticized was in its control over science, and censorship of researchers and the media. MAFF established a policy which limited the sharing of information regarding the health risks of BSE. This included a policy which restricted information on BSE, which was sent to veterinarians.²³ Additionally, when veterinarians had findings regarding BSE, they were instructed to not share information with universities without the preapproval of MAFF, and they were told not to publish their findings.²⁴ All research that was conducted and published

¹⁸ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 402.

¹⁹ Jones, "BSE, Risk and the Communication of Uncertainty: A Review of Lord Phillips' Report from the BSE Inquiry (UK)," 655.

²⁰ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 399.

²¹ Webster, Douglas, and Sato, "BSE in the United Kingdom," 224.

²² Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 167.

²³ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 399.

²⁴ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 399.

was controlled by MAFF.²⁵ They aimed to keep information about BSE within the ministry and refused to take action on the information that they did receive.²⁶ This risk management strategy was designed to avoid alarming the public.²⁷

MAFF also worked to deny suggestions that BSE may pose a risk to human health. The SWP categorized BSE as a solely animal disease, closing research avenues into the human health risks of infected beef.²⁸ At the same time, they ruled out the idea of the disease posing a risk to humans.²⁹ Until 1994, MAFF continued to say that vCJD could only be acquired by consuming large amounts of beef infected with BSE.³⁰ This is in opposition to both current and historical research. Additionally, it was contrary to MAFF's own policies prohibiting bovine material in baby food during this time.³¹ This demonstrates an awareness of the potential risks of BSE, and a denial to take action regarding these risks. It was not until 1996 that the British government admitted that vCJD appeared to be related to BSE, indicating that BSE had been and continued to be a serious human health risk.³²

The structure of the government at this time also posed a barrier to effective public health guidance. MAFF has been frequently accused of having conflicting responsibilities, to

²⁵ Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 169.

²⁶ Manuel Medina Ortega, "Report on alleged contraventions or maladministration in the implementation of Community law in relation to BSE, without prejudice to the jurisdiction of the Community and national courts," *Temporary committee of inquiry into BSE*, 07 February 1997, https://www.europarl.europa.eu/conferences/19981130/bse/a4002097_en.htm.

²⁷ Webster, Douglas, and Sato, "BSE in the United Kingdom," 228.

²⁸ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 400.

²⁹ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 400.

³⁰ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 401.

³¹ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 400.

³² Jones, "BSE, Risk and the Communication of Uncertainty: A Review of Lord Phillips' Report from the BSE Inquiry (UK)," 659.

both the British cattle industry, and to the British public regarding their health.³³ MAFF was responsible for protecting the economic sustainability of the agricultural industry, as well as protecting public health in relation to this industry. This was problematic during the BSE crisis as measures which could have protected the British public from a contaminated food supply, such as cattle culls, were financially harmful to the British cattle industry. Additionally, there was a fear that by labelling British cattle as dangerous, the number of exports of this product would decline.³⁴ This would then negatively impact the British agricultural economy. As a result, MAFF downplayed BSE's scale and potential dangers to protect the interests of cattle farmers and the British economy.

Prioritization of the cattle industry over public health can also be seen in the types of people who were asked to speak with MAFF and the SWP. MAFF frequently had discussions with farmers and industry representatives about BSE.³⁵ However, there were no discussions with food safety public interest groups, such as Non-Governmental Organizations (NGOs).³⁶ They also excluded experts whose inclusion may have implied there was a human health risk, such as doctors or human public health experts.³⁷ MAFF was also accused of working too closely with the SWP which was supposed to provide independent advice.³⁸ All of these aspects demonstrate a concerted effort by MAFF to control the narrative surrounding BSE and to protect the interests of British industry and beef farmers.

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³³ Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 163.

³⁴ Van Zwanenberg and Millstone, "'Mad cow disease' 1980s–2000: how reassurances undermined precaution," 173.

³⁵ Webster, Douglas, and Sato, "BSE in the United Kingdom," 230.

³⁶ Webster, Douglas, and Sato, "BSE in the United Kingdom," 230.

³⁷ Van Zwanenberg and Millstone, "'Mad cow disease' 1980s–2000: how reassurances undermined precaution," 179.

³⁸ Webster, Douglas, and Sato, "BSE in the United Kingdom," 230.

The next aspect of the BSE crisis to be examined is how the government was forced to take action due to British domestic outcry. There are four main ways in which the British public responded to the BSE crisis; through intensive media coverage, widespread fear, connections to industrialization, and an overall feeling of betrayal.

The first way in which the public reacted to the BSE crisis was through increased media coverage. Early on in the crisis, in 1987, the British national news picked up the story that there were 137 cases of BSE.³⁹ A moderate level of media coverage then continued, until the announcement that BSE was transmissible to humans in the House of Commons on March 20th, 1996.⁴⁰ Following this, BSE was front page news for the following 20 consecutive days, a level of news coverage typically only seen in wartime.⁴¹ Before this announcement, national and international media sources had made it clear that there were human health risks from consuming food affected by BSE.⁴² There were also significant spikes in media coverage when there were cases of vCJD announced in several teenagers.⁴³ Cases in young, healthy people were rare, as previous cases had been detected in people deemed high risk due to medical procedures such as blood transfusions and hormone treatment.⁴⁴ Fear arose that young people were catching vCJD from their food.⁴⁵ The media was an important source of information, particularly as MAFF and the government sought to cover up information regarding BSE.

³⁹ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 399.

⁴⁰ Richard Packer, *The Politics of BSE*, 158.

⁴¹ Packer, *The Politics of BSE*, 158.

⁴² Van Zwanenberg and Millstone, "'Mad cow disease' 1980s–2000: how reassurances undermined precaution," 179.

⁴³ Christopher Barclay and Jane Cushion, "Bovine Spongiform Encephalopathy Research Paper," *Science and Environment Section House of Commons Library*, 20 December 1995, 25, <https://researchbriefings.files.parliament.uk/documents/RP95-132/RP95-132.pdf>.

⁴⁴ Webster, Douglas, and Sato, "BSE in the United Kingdom," 233.

⁴⁵ Barclay and Cushion, "Bovine Spongiform Encephalopathy Research Paper," 25.

Fear regarding BSE spread through the wider British public. This fear led to falling beef sales.⁴⁶ When British citizens under 30 began developing vCJD, panic ensued.⁴⁷ This disease was particularly frightening as it was a fatal, degenerative disease, passed to humans through their most basic function of eating.⁴⁸ Richard Packer, a member of MAFF, created a theory in 2006 as to why the BSE crisis particularly frightened the British public. He argued that this strong reaction was due to the invisible nature of the threat, how the threat was linked to food, the spectacular symptoms, and the seeming constant emergence of facts.⁴⁹ All of these factors are clearly present in the BSE crisis and speak to why it caused such a widespread panic despite its very low death toll and case rates in humans. This widespread public fear and its potential to have severe impacts on the British public image and economy through plummeting beef sales forced the government to take action to address the crisis.

There was also a feeling among the British public of betrayal. Packer's theory argued that public fears were exacerbated by the suspension of government food safety policies, rows with the EU, and exasperation with the conservative government.⁵⁰ All of these factors led to a feeling that the British government, MAFF and SWP had failed the public, and had failed to protect them from the threat of BSE and vCJD. Trust in the government continued to be eroded with the death of Max, the Siamese cat.⁵¹ Max likely died of a variety of BSE spread through his food supply. However, before the publication of this death, the British government had reassured the

⁴⁶ Fisher, "Cattle Plagues Past and Present: The Mystery of Mad Cow Disease," 220.

⁴⁷ Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 165.

⁴⁸ Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 165.

⁴⁹ Packer, *The Politics of BSE*, 246.

⁵⁰ Packer, *The Politics of BSE*, 246.

⁵¹ Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 168.

public that the disease could not cross the species barrier.⁵² When this reassurance was disproven, its implications for humans spread fear and distrust of government science.⁵³ The continuing inability of the government to create a policy to protect its population, or its inability to enforce legislation that existed, further eroded the public's trust.⁵⁴ This contributed to a feeling that the government had betrayed them in favour of the cattle industry.

Connected to the government's betrayal of the public was the idea that the BSE crisis had been caused by the failures of industrialization. The BSE agent was primarily spread through MBM in the food supply to cows.⁵⁵ MBM was introduced to farming as a cost-cutting measure as it was a cheaper form of protein to feed cattle. It consisted of poorly processed animal material. In essence, it is a form of cannibalism as it contains sheep and cattle products which were then fed to cows. By 1988, MBM was banned from cattle feed, although this ban was not sufficiently enforced.⁵⁶ Ethical concerns about this practice surfaced concerning the implications that industrialization and capitalism had on the farming industry in terms of its health and safety measures.⁵⁷ This also raised debates regarding genetic engineering, genetically modified food, organic farming, vegetarianism, and the ethical treatment of animals.⁵⁸ Arguments were made at the time that BSE is a consequence of industrialized agricultural production that places productivity above any other cost.⁵⁹ The level of discomfort with how BSE spread did not have

⁵² Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 168.

⁵³ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 401.

⁵⁴ Van Zwanenberg and Millstone, *BSE: risk, science and governance*, 2.

⁵⁵ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 399.

⁵⁶ Beck, Asenova, and Dickson, "Public Administration, Science, and Risk Assessment: A Case Study of the U.K. Bovine Spongiform Encephalopathy Crisis," 401.

⁵⁷ Jones, "BSE, Risk and the Communication of Uncertainty: A Review of Lord Phillips' Report from the BSE Inquiry (UK)," 663.

⁵⁸ Jones, "BSE, Risk and the Communication of Uncertainty: A Review of Lord Phillips' Report from the BSE Inquiry (UK)," 633.

⁵⁹ Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 174.

clear direct impacts on government policy, but it does speak to an increased public interest in how farming functions in Britain. As well, it increased the level of blame for the British government, which had allowed for slipping standards to obtain increased productivity.

This increase in public fear, sense of betrayal, and anger all contributed to pressure on the British government to change their policies and take increasing amounts of action regarding the BSE crisis. This resulted in substantive policy measures to appease the British public which included a cattle cull and export ban.⁶⁰ Without the pressure of the press and the British public, it is possible that MAFF's plans to keep information about BSE within their organization would have succeeded. This would have avoided the economic impacts on the British beef industry, although potentially resulting in increased infections of cows with BSE and humans with vCJD. While the potential impacts of this are unknowable, it is important to recognize the impact that the British public and media had on government policy. This impact forced them to shift from a deny and contain approach, to a more widespread restrictive public health policy model.

EU and International Pressures

The British government was forced to take regulatory action regarding BSE due to international pressure, particularly from the European Union (EU), with whom they did a significant amount of beef and cattle trade. The pressure from the EU was based on threats that they would cease all imports of British beef and cattle unless significant regulatory measures were implemented in order to track BSE and prevent the export of material infected with BSE. As such, the British government was forced to take action to prevent significant economic damage to their bovine industry. In 1996, there was a marked shift in EU policy regarding BSE,

⁶⁰ Fisher, "Cattle Plagues Past and Present: The Mystery of Mad Cow Disease," 226.

which saw a total ban on British cattle and beef. In the pre-1996 period, there were restrictions, but these were far milder.

In 1989, the EU began restricting British cattle due to BSE. Their first policy was to ban imports of cattle born before July 18th, 1988.⁶¹ As MBM was banned in early 1988 in the UK, the belief was that this would protect domestic cattle within the EU from cattle born in the UK before the bans on MBM were in place. This EU ban arose due to the concerns of farmers who had been considering importing British cattle.⁶² On February 7th, 1990, the scope of restrictions on cattle imports increased.⁶³ These restrictions required British exports to be only from herds that had been BSE-free for six years.⁶⁴ While seemingly simple, this was a hugely problematic restriction. By this time, most herds had experienced BSE, and even for the herds that had not, there was no government tracking system to certify them as being BSE-free.⁶⁵ Despite this challenge, data collected from the EU demonstrates that the value of cattle exports rose each year between 1988 and 1995.⁶⁶ Other more simple restrictions implemented at this time relied on the deboning of beef exported from Britain, as this was considered the highest risk part of the cow in terms of BSE transmission.⁶⁷ As restrictions in the pre-1996 period were relatively limited, causing an inconvenience but not an impediment to trade, the British government made little effort to establish regulatory change in response to EU legislation.

However, this changed in March 1996 with the announcement of the connection between BSE and vCJD. Days after this announcement in the British parliament, the EU banned exports

⁶¹ Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 169.

⁶² Phillips Worth Matravers, June Bridgeman, and Malcolm Ferguson-Smith, "Report of the BSE Inquiry," *The BSE Inquiry*. October 2000, 6.3, <https://webarchive.nationalarchives.gov.uk/ukgwa/20060525120000/http://www.bseinquiry.gov.uk/index.htm>.

⁶³ Worth Matravers, Bridgeman, and Ferguson-Smith, "Report of the BSE Inquiry," 6.9.

⁶⁴ Barclay and Cushion, "Bovine Spongiform Encephalopathy Research Paper," 11.

⁶⁵ Barclay and Cushion, "Bovine Spongiform Encephalopathy Research Paper," 11.

⁶⁶ Worth Matravers, Bridgeman, and Ferguson-Smith, "Report of the BSE Inquiry," 6.11.

⁶⁷ Packer, *The Politics of BSE*, 164.

of any product derived from British cattle.⁶⁸ This was a total ban on British cattle, far different from the previous regulatory restrictions. On June 21st, 1996, the EU produced the Florence Framework, a five-point program which would allow the UK to move towards beef and cattle export re-entry into the EU common market.⁶⁹ The main policy points were that the UK had to undertake a selective cull, introduce a cattle tracking system, and create a feed recall scheme.⁷⁰

Throughout the following years, the UK took significant steps towards getting the EU to lift this ban by implementing the policies outlined in the Florence Framework. It was ultimately lifted in 1998.⁷¹ These policy changes demonstrate how successful EU pressure and policies were in forcing the British government to change its approach to BSE.

Conclusion

The British government, including MAFF and the SWP, were initially very resistant to implementing substantive policies aimed at curbing the spread of BSE as they were motivated primarily to protect the British cattle and beef industries. It was not until there was mounting public pressure, as well as economic pressures from the EU, that the government implemented sufficient policies regarding BSE. This push to act was motivated by a desire to protect British industry, rather than the public health of Britons. Without the public pressure domestically, and increasing EU export restrictions, the British government may not have changed their policies towards BSE. Thus, the involvement of the public and the EU were crucial factors in forcing a government response to BSE. The BSE crisis is widely believed in historical accounts to have

⁶⁸ Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 170.

⁶⁹ Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 169.

⁷⁰ Packer, *The Politics of BSE*, 182.

⁷¹ Telfer, "Apocalypse Cow: Policy-Making in Conditions of Uncertainty--Lessons from the BSE Epidemic in the United Kingdom," 164.

been exacerbated by the failure of the British government to act. However, the story of how the government was forced to act is far more interesting for both historical research, and for the implications for the future that this research holds. BSE demonstrates the potential impacts of government policy being made in favour of industry rather than public health. In this case, the government avoided action to prevent economic decline. Additionally, they only began to take regulatory action regarding BSE when avoiding doing so would cause harm to the economy and cattle industry. This case presents a precautionary study of the intermixing of industry and public health. It also presents hope that public and international pressure can be successful in generating a regulatory response, resulting in the protection of a population from a deadly condition.

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