Country Land and Business Association

Submission to the Lessons to be Learned
Inquiry into the Foot and Mouth Disease
Outbreak of 2001

February 2002
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COUNTRY LAND AND BUSINESS ASSOCIATION

SUBMISSION TO THE LESSONS TO BE LEARNED INQUIRY INTO THE FOOT AND MOUTH DISEASE OUTBREAK OF 2001

EXECUTIVE SUMMARY

INTRODUCTION

The FMD epidemic has affected the community at large. It has had a negative impact on the national economy, on the environment, on tourism, on agriculture, on the livestock industry, on farms where all animals were slaughtered and on farms which lost no animals. There have been serious animal and human welfare issues. It has also had serious and wide-ranging negative effects on a broad spectrum of rural businesses and on the public visiting the countryside. This impact extended to the towns as well, illustrating the interconnection and interdependence of rural and urban enterprise. The CLA thus welcomes the opportunity to submit comments to Dr Anderson's Lessons to be Learned Inquiry, (henceforth LLI).

The CLA represents 46,000 members with over 130,000 rural businesses, and has consistently called for an inquiry into the 2001 FMD epidemic which is open and held in public. We remain to be convinced that the chosen procedure of two ‘independent’ inquiries will satisfactorily bring into the public domain a full account of the epidemic and the efficacy of the measures taken to eliminate the disease. We are concerned about the independence of the LLI. Therefore the LLI should present the Inquiry findings to the public at the same time as they are made available to Government. The public will only be confident in the Inquiry's findings if it is seen to be independent.

Given that there are two inquiries underway relating to control of infectious animal diseases we are dismayed that legislation relating to FMD (the Animal Health Bill) has been drafted and is currently going through Parliament before these Government-initiated Inquiries have reported. The Animal Health Bill is premature.

The CLA believes that a common factor for all infectious disease outbreaks is the need for much stricter border controls to prevent the entry of the infective agent. The first focus of any inquiry into a disease outbreak should be its source. This is a notably absent area from the current inquiries.

GOVERNMENT RESPONSE TO THE IMPACT ON THE WIDER RURAL ECONOMY

Following the outbreak of FMD, the damage to consumer confidence in British produce and the downturn in foreign tourism to Britain, many rural businesses are facing financial crises. There is an urgent need for a rural recovery package. Barriers to business development in the rural areas must be minimised. In particular, problems relating to lack of infrastructure, finance and training provision must be addressed. The need has never been greater.

The FMD crisis has both identified and exposed the strong linkages between economic activities within rural areas that constitute the rural economy and within regional and national economies. The crisis exposed the indirect impact agriculture has on other industries, in particular, tourism and leisure, which depend on a managed landscape. Economic impact studies on the immediate effect of FMD have shown that ancillary industries in the rural economy suffer if agriculture is adversely affected. The knock on effect, particularly of the way the outbreak was managed has been sharp and severe in all parts of the rural economy. Estimates made by Regional Development Agencies show losses in income and jobs from FMD as three times higher than those in farming.

Regional Development Agencies (RDAs) should now see why balanced economic development across all their areas is so important. They should appreciate the value of regional food groups, and of policies to encourage improved marketing of agricultural produce and diversification. A
wider range of economic activities needs to be built into areas solely dependent on agriculture and tourism. The interdependence of the rural economy also demonstrates the need for positive policies for rural areas at national and European level.

It remains difficult at this stage to quantify the effect of the FMD epidemic on rural businesses coming out of the winter. CLA is undertaking work aimed at providing better information in relation to the private sector. Publication by the Government of its own autumn 2001 economic survey would provide a basic level of information against which trends could be assessed.

**RECOMMENDATIONS**

- A full Government-directed survey should be undertaken on the adverse effects of FMD on rural businesses and of the effectiveness of the measures taken so far in meeting the scale and nature of the crisis.
- All rural business funding mechanisms should be reviewed against standards of speed and bureaucracy. They should be more accessible.
- Grant application procedures in the Rural Development Programme should be simplified and adjusted so that funding is available for new and improved abattoirs and meat cutting plants;
- Development of a Rural Business Advisory service available to all types of small rural enterprises.

CLA proposals specifically relevant to post FMD recovery of the rural economy are:

- Leisure, tourism and recreation - better sources of advice, development and promotion of more alternative all weather visitor attractions to extend the season;
- Food processing and marketing - identification of essential infrastructure needs; processing, distribution, market opportunities and IT availability;
- Planning - amend planning guidance to support wider rural development and diversification, recognition of agricultural buildings as brownfield sites, revised guidance on signing (environmental and social) in rural areas to attract customers to rural businesses.

**CONTINGENCY PLANNING**

A coherent, up-to-date, clear, well-publicised contingency plan is essential to the control of any disease outbreak. It is inexplicable and unacceptable that the Government's contingency plan for FMD, on which its 2001 disease eradication strategy was based, is still not in the public domain. A more rapid response crisis management centre is needed within Defra and disease management decision making should be devolved where possible to regional and local level. The Army should be a part of the contingency plan from the start so that the fear of implying a national emergency does not delay their involvement. Formal consultation with the police is also necessary. Contingency planning and liaison between Government and their agencies is particularly important. The willingness of agencies to re-interpret Government advice to suit their own agendas was highly damaging to the overall control of the disease management. The different codes of conduct and guidance which circulated throughout the epidemic, especially in relation to access, were unhelpful and unnecessarily added to the impression of confusion.

**EFFICIENCY OF GOVERNMENT RESPONSE TO THE EMERGING CRISIS**

There was an unacceptable delay before the Government acknowledged the seriousness of the crisis it was facing. We now know that the three-day delay in introducing an animal movement ban and the delay in deploying the Army had profound negative effects of the spread of the disease.
CLA members complained of operational delays in decision making. Too often decisions were referred to London which could have been more quickly taken locally. Many of the delays would not have occurred had the main recommendations of the Northumberland report been followed. The assumption that the disease had not been present in the UK long before it was discovered was critical.

Major problems included failure to recognise the effect that introducing the contiguous cull would have on the capacity of the disposal system; failure to deal with the lack of resource availability; the reluctance of Defra staff to take decisions (something that did not affect the Army); problems in locating premises; failure to meet the crucial diagnosis to slaughter time limits.

**ROLE OF GOVERNMENT BODIES**

Local authorities have a pivotal role to play and must be brought more fully into the planning and implementation of policy. Their handling of the access issue was particularly good. The closure of footpaths was quick and proper in the face of the information they had. The eventual deployment of the Army was the turning point. The soldiers' inexperience in handling livestock was to be expected but their intervention made all the difference.

The State Veterinary Service performed under enormous pressure, compounded by low staff numbers and severe under-resourcing. Lack of FMD experience and training was noticeable. Crucially, the full extent of the epidemic or lack of it may never be known because the principle of taking specimens from suspect cases and contacts was not followed.

**PREPAREDNESS OF FARMING INDUSTRY**

It is clear that the disease was present in the country long before it was discovered. It is essential to establish the length of time it had been here and to determine whether and how the disease could have been identified earlier. Proper training for vets and farmers in disease identification is an imperative.

Once a highly infectious disease is established the role of biosecurity becomes paramount. In the 2001 epidemic there is much to be learnt by establishing the routes from which the disease entered the country and along which the disease spread. Establishing the extent of animal to animal transfer as against human to animal transfer is essential. Allegations that farmers spread the disease knowingly must be properly investigated. Wind, bird and wild animal transfer should also be looked into.

The efficiency of biosecurity on individual farms should be examined. Biosecurity was unlikely to have been as tight as it practically could have been. This is not a matter of allocating blame but of establishing sound scientific principles for biosecurity measures. We are, however, very concerned that the Inquiry has insufficient time, resources and authority to conduct the analysis required.

The import of diseased meat is of critical importance to the likelihood of a disease outbreak. The UK and EU import controls are undoubtedly defective and the UK must bring forward primary legislation to tighten border security and prevent further infection.

**ROLE OF VACCINATION**

In the future, we must avoid such extensive slaughtering of healthy animals - only 1,327 out of 9,461 premises culled, tested positive for FMD. The closest examination must be given to the role of vaccination in helping to achieve overall disease control. In the short term, suppressive vaccination may help reduce the pressure on the system of slaughtering and disposal. This was precisely the way it was used in the Netherlands to buffer pressures on their disposal capacity. We have urged the Royal Society Inquiry into Infectious Diseases in Livestock to consider the options for such use of vaccination in detail. We also urge that consideration be given to options of
‘vaccination to live’ i.e. protective vaccination as well as suppressive vaccination. It would not be necessary to close down as much of the countryside and there would be far less disruption to tourism. We suggest that in conducting such analyses, there should be three assessment criteria:

- reducing the number of animals which have to be slaughtered;
- reducing the time elapsed before the epidemic is stopped, and
- minimising the time that markets and the rural economy are disrupted by animal and human movement restrictions and loss of export markets.

IMPACT OF CULLING AND DISPOSAL

One of the horrors of the 2001 FMD epidemic was the magnitude of the animal welfare issues caused by movement restrictions which were a necessary part of the chosen control strategy. The CLA believes that the logistical effect of the contiguous cull and animal movement policies was not factored into the disease control decision-making at the outset but were dealt with on an ad hoc basis as the welfare problems emerged.

Lack of a consistent culling policy resulted in unnecessary animal deaths, together with the additional suffering for the farming community. Any future cull must be organised by experienced local operators, trained in risk assessment and in evaluating physical conditions and topography.

The impact of the visual imagery, combined with the horror of the physical effects (smoke, smell, pollution) multiplied the economic effects of the cull when disposal was undertaken by burning on open pyres or tipped into pits. Incineration or rendering are much to be preferred, and it is vital that attention be given to the capacity and location of a strategic reserve of appropriate disposal facilities.

There is more to do to repair the damaged image of the countryside as perceived by the general public. The CLA sees this as a critical element of its work in the coming year. Unless the public’s confidence in the countryside is restored, the rural economy will continue in its state of recession.

COMMUNICATIONS

The 2001 FMD Outbreak demonstrated that the inter-relationship and lines of communication between Government agencies, departments and local authorities clearly needs re-assessing and strengthening. From the CLA’s viewpoint, communication between the various agencies did not appear to function and roles were not clarified or even established.

Clear, consistent and comprehensive communication is important in building trust, avoiding misunderstandings and ensuring transparency and accountability. In particular the 2001 FMD outbreak illustrated the following:

- MAFF and the National Assembly for Wales should have developed better methods to keep in touch with all farmers within infected areas and their neighbours.
- At the outset Ministry helplines were grossly undermanned by staff who, regrettably, appeared poorly briefed and unsure of their duties. Better systems are required for informing its staff of rules and schemes and of changes to them.
- We are dismayed by the lack of statistical information regarding the epidemic that was provided by MAFF/DEFRA during the epidemic and the confused presentation which still prevails. New corrected lists should be published immediately, listing farms which tested positive to the disease, farms which tested negative and those which were slaughtered but not tested.
INTRODUCTION

1. The Country Land and Business Association represents the interests of 46,000 members with over 130,000 rural businesses in England and Wales who together manage 60% of the agricultural area of those countries. These businesses are engaged in almost 200 different types of rural enterprise. Land management, including livestock farming, is a core activity of these businesses. We have therefore been directly concerned by the 2001 Foot and Mouth Disease (FMD) epidemic both in terms of its impact on agriculture and on the wider rural economy.

2. The FMD epidemic has affected the community at large. It has had a negative impact on the national economy, on the environment, on tourism, on agriculture, on the livestock industry, on farms where all animals were slaughtered and on farms which lost no animals. There have been serious animal and human welfare issues. It has also had serious and wide-ranging negative effects on a broad spectrum of related businesses surrounding primary agricultural production, and on most other rural businesses which depend on public events, such as sporting occasions and shows, and on the public visiting the countryside. This impact extended to the towns as well, illustrating the interconnection and interdependence of rural and urban enterprise.

3. The CLA thus welcomes the opportunity to submit comments to Dr Anderson’s Lessons to be Learned Inquiry, (henceforth LLI). Most of our conclusions and recommendations are based on four regional meetings with members, together with reports and letters from our members. In addition, the CLA held two scientific seminars where representatives from the livestock industry, rural and environmental organisations and veterinarians discussed scientific issues with panels of scientists. We refer to MAFF or DEFRA according to the context.

4. The CLA has consistently called for an inquiry into the 2001 FMD epidemic which is open and held in public. We remain to be convinced that the chosen procedure of two ‘independent’ inquiries will satisfactorily bring into the public domain a full account of the epidemic and the efficacy of the measures taken to eliminate the disease. We strongly believe that lessons will not be satisfactorily learned unless there is full, frank and open discussion of the successes and failures in controlling the 2001 epidemic. We are also concerned about the independence of these Inquiries. Therefore the LLI should present the Inquiry findings to the public at the same time as they are made available to Government. The public will only be confident in the Inquiry’s findings if it is seen to be independent. There are overlaps in the remits of the Royal Society and Lessons Learned Inquiries and therefore there is repetition in our evidence. Because of these overlaps, it is important that the LLI takes note of the Royal Society Inquiry into Infectious Diseases in Livestock, the National Audit Office Inquiry, the Royal Society of Edinburgh Inquiry and the Devon, Northumberland and Shropshire Inquiries.

5. Given that there are two inquiries underway relating to control of infectious animal diseases we are dismayed that legislation relating to FMD (the Animal Health Bill) has been drafted and is currently going through Parliament before these Government-initiated Inquiries have reported. The Animal Health Bill is premature. It is the findings of the Inquiries that should inform the need, if any, for legislation.

6. The CLA believes that a common factor for all infectious disease outbreaks is the need for much stricter border controls to prevent the entry of the infective agent. The first objective of any inquiry into a disease outbreak should be the source of the outbreak. This is a notably absent area from the current inquiries.
7. Also, disease organisms do not respect borders, for example those between England, Scotland, Wales and Northern Ireland. Therefore, if disease control is to be successful in the future, contingency plans and disease control strategies should be worked through with the devolved administrations to formulate a joint UK wide policy. We encourage the Inquiry to examine and draw conclusions about the apparently more rapid eradication of the same epidemic in Galloway and Dumfries compared to that south of the border.

8. There is a common point which must be considered by both the current FMD inquiries. This is to ensure that the control of future outbreaks of FMD or any other highly infectious diseases is based on scientific principles. These scientific principles should form the basis of the comprehensive animal health strategy recommended by the Policy Commission on Food and Farming.

9. Our response is in nine sections following the questions posed by the Inquiry.
I  HOW ADEQUATE WERE THE CONTINGENCY PLANS AT NATIONAL AND LOCAL LEVELS FOR DEALING WITH FOOT AND MOUTH DISEASE IN GREAT BRITAIN? WHAT WERE THE SPECIFIC STRENGTHS AND WEAKNESSES?

10. A coherent, up-to-date, clear, well-publicised contingency plan is essential in the control of any disease outbreak. The contingency plan should be part of an emergency planning process, so that all participants are involved in its construction, testing and regular rehearsal. Lead players, including stakeholders, local veterinarians, local organisations and the public, the Army, the Environment Agency, other agencies and the local authorities, should be involved. There should be defined responsibilities down to parish level.

11. The contingency plan must be publicly available, for instance in public libraries. It is inexplicable and unacceptable that MAFF’s contingency plan for FMD, on which its 2001 disease eradication management strategy was based, is still not in the public domain. We urge the LLI to publish this plan in its report as part of its critique of how well the 2001 epidemic was controlled.

12. Contingency planning involves learning lessons from the past, continuous evaluation of recommendations from previous epidemic investigations and continuous updating in light of new risks, new research, new techniques and new situations. Assumptions as to scale are critical. It is important to identify and record the extent to which administrative muddle, lack of local consultation, lack of local knowledge and inadequate policy implementation compromised scientific policy outcomes.

13. A more effective “rapid response” crisis management centre is needed within DEFRA for disease outbreaks and other emergency events. Implementation of national policy and disease management decision making, following requirements of national policy, should also be devolved wherever possible to regional and local level, with clearly defined line and area management and line and area responsibilities. Local veterinarians should be involved in local disease management policy. Regional crisis centres should be established to back up the national centre.

14. Rapid and informed decision making is especially important with FMD, which can spread so rapidly. The Army should be called in immediately at the beginning of any outbreak for consultation and review of the contingency plan. If immediate Army involvement is included in the contingency plans there would then be no grounds for alarm about a ‘national emergency’ when the Army is consulted. Fear of implying that there was a national emergency is thought to have been one of the reasons for the delay in calling in the Army in 2001. Logisticians (e.g. from the Army) should advise the disease control centre. It should be able to call on a “territorial service” of trained vets (state veterinary service and local veterinary inspectors), of FMD specialists, vaccinators, slaughterers, haulage contractors and, disinfecting teams, who could be contacted quickly as soon as an outbreak was detected to ensure that effective counter-measures could be put in place rapidly and effectively.

15. It is important that personnel likely to be used during the outbreak should be identified in advance and should receive basic training and instruction regarding the work that will be required of them. Risk assessment, hazard analysis and health and safety standards also must be established and published in advance of any future outbreak.

16. A contingency plan does exist to deal with any rabies outbreak and might provide useful parallels. It would be useful for the LLI to place in the public domain the current status of the rabies contingency plan and information on similar emergency plans for other diseases.

17. State Veterinary Service vets, Council officials and potential contractors (e.g. army, hauliers, and slaughterers) should undergo regular training and refresher courses in diagnostics of rarely seen diseases and in the handling of animal disease epidemics. Training is also necessary in slaughter management. Reassurance must also be provided that the training, and provision of refresher course to private practice vets is adequate for managing sudden, large scale outbreaks as we experienced in 2001.
18. To the extent that vaccination may become, in future, a more prominent feature of disease control strategies, thought must be given to the training of vaccinators. It is not sufficient that this is left to the last minute. It should be noted that farmers are normally the vaccinators of their livestock and should therefore be included in such training.

19. Good communications are an essential to successful management of a large-scale animal disease outbreak. Authorities managing the outbreak must have efficient, rapid means of communication with everyone directly affected: the farmers, the wider rural community and with the general public. More use should be made of local knowledge and local expertise, particularly veterinary.

There should be more decentralisation and systems for local decision making.

Much more should be done to provide information on the science of the disease and the scientific basis of the control strategy, both to Government policy makers and to the public in layman's language. The Royal Society and scientists generally can and should do more on this front. A better-informed public may result in better-informed Government policy. Specific examples during the 2001 outbreak were the fog of misinformation on human health aspects of consuming produce from animals which have been vaccinated against FMD, and the scientific possibility to distinguish vaccinated animals from infective animals. It is vital that very clear scientific information is available to provide rapid clarification.

20. Persons trained and qualified in infectious disease of animals, virologists, microbiologists and parasitologists, should also be involved in the contingency planning. Their names and qualifications should be published with the plan. This plan could be open to public comment by email to the appropriate DEFRA department.

21. Specialists in human medicine, both scientists and doctors should be included in each plan's panel. This is partly because many animal infections (the zoonoses) can infect humans too, even if this has so far been a rare occurrence, as with FMD and avian influenza. Nationally and internationally we are well provided with specialists in infectious agents at all levels in human medicine. The UK is a world leader in this area: the science, the clinical diagnosis, and outbreak management of infectious disease. There is no equivalent availability in veterinary medicine, which anyway is a much smaller profession in terms of numbers and investment than human medicine. There should be much more co-operation between the two disciplines. Both public and animal health suffers when there is a lack of communication and inter-professional rivalry between the two professions. There was a marked lack of communication during the 2001 epidemic and the control of the outbreak will have suffered as a result.

22. There was delay from MAFF in allowing the appropriate materials needed for diagnosis of human infections in the suspected human cases of FMD. The Central Public Health Laboratory at Colingdale, which is a containment level-4 laboratory, was only allowed to perform the PCR (polymerase chain reaction) test to diagnose human FMD infection. It was not allowed to do virus isolation, and several months elapsed before FMD antigen was given to Colingdale so that the putative human cases could have antibody tests run on their serum samples. If the PCR test is good enough for human diagnosis why is it not good enough for animal diagnosis? The LLI should investigate why was there such resistance at the Institute for Animal Health at Pirbright to using PCR as a primary diagnostic tool, and trialling the farm-gate PCR test offered by the USDA on the 9th of March.

23. It is vitally important that there should be open channels of communication between the veterinary and human medical services and research establishments. Close collaboration is needed to ensure expertise and knowledge is shared between the veterinary and human medical services. What better way than to work together on the plans to control infectious disease in animals? The existence and increasing threat of zoonoses makes such collaboration essential. Delays that occurred in human FMD diagnosis during the 2001 epidemic arose from MAFF's decisions. This must not be allowed to happen under DEFRA.

24. In the 1967 FMD outbreak the police were used to take immediate action to isolate infected farms. This was a sensible approach as the authority of the police ensured immediate
sealing of the area. However we discovered in the 2001 FMD epidemic that in some cases there was no formal consultation with the police who have their own crisis management systems. It also appeared that there are insufficient county police forces available to perform this task. This aspect of rural policing should be taken into account in the comprehensive spending review.

25. There is a need for contingency planning and liaison at various levels, over various issues.

- At international level between the UK Government and the EU authorities. In accordance with Article 5 of EU Directive 90/423 the UK is obliged to file a contingency plan with the EU Commission. Such plans should be reviewed regularly in light of international intelligence on outbreaks of FMD and should be publicly available.

- At national level between England, Scotland, Wales and Northern Ireland and also between Departments: e.g. DEFRA, National Assembly for Wales Agricultural Department, Treasury, Defence, the Cabinet Office, over general and financial responsibilities, line management, local devolution.

- At regional level between DEFRA the Government Offices and Regional Development Agencies. Regional liaison was not helped by some agencies not working to Government Office regional boundaries, for example, three Animal Health Offices cover the East Midlands. However, it is not completely clear that the region is the appropriate level for co-ordination. In the North West, the DEFRA control centres and Animal Health Offices, worked at the County level, i.e. for Cumbria, Lancashire and Cheshire. It is highly likely that there would have been even greater problems of communications if one office had tried to control the whole region.

- At county level. Counties varied in their willingness to activate their emergency planning procedures, e.g. Devon, one of the worst affected counties, took little action.

- Between agencies, for example, DEFRA, the National Assembly for Wales and the Environment Agency regarding disposal methods and sites. More research is needed into disposal strategies (burial, burning, incineration, and rendering). There must be better agreement on which strategy should be used at different stages in a developing epidemic. Changes in disposal method become necessary when, for example, the sheer number of carcasses at any one time makes the more desirable disposal strategies impractical. Where burial is to be used, there should be open consultation on suitable sites (including on-farm sites). They should be identified and investigated for any risks to the environment or public health and long-term effect on land, in advance and guidelines for their use should be in place. Little or no risk assessment was carried out at the Orton mass burial site and the reported result is that effluent is being taken away on a daily basis for disposal. Burning of large numbers of carcasses over such long periods as happened in north Cumbria must be avoided in future. There are many reports of pyres burning for between 7 and 8 weeks. If environmental regulations are over-ridden, this should be publicly justified.

- Between Departments and their agencies. A prime example concerned the public access issue which fell between 11 organisations - DEFRA, DCMS, Countryside Agency, English Heritage, CADW, CCW, Environment Agency, the English Tourism Council, the National Assembly for Wales, the WLGA, and LACOTS. At one point these various bodies each appeared to be trying to reinterpret advice contained in MAFF risk assessments on opening up sites and paths to suit their own agendas. Several slightly different codes of conduct and recommended wordings for signs were circulating. This was highly confusing. Lancashire County Council should be congratulated on their handling of the access question and their model should be examined by others. Their emergency planning for Rights of Way and attention to all details is something which others could learn from for the future.

26. Clearer lines of command must be established, and better contingency plans laid, taking account of the experience of the crisis. Stakeholders should be consulted over draft contingency plans and need to be involved in contingency planning exercises.
### CONTINGENCY RECOMMENDATIONS

- The national contingency plan must be science-based, that is based on evidence and consensus from virologists, biologists, pathologists, epidemiologists and veterinarians with laboratory and field expertise of FMD or the infectious agent concerned. Scientists and doctors with expertise in human infection should also be included. There are likely to be significant reservoirs of knowledge and experience abroad and this should be made full use of particularly in any pre-epidemic planning.
- It must be practical, easily understood and clearly explained to those concerned, including livestock producers.
- It must be subject to economic and scientific audit and evaluation in relation to benefits
- It must be reviewed regularly and up-dated.
- It must be published and readily available and circulated annually to ensure that livestock producers know in advance exactly what could happen in the event of a further outbreak-including licensing restrictions for those not in an infected areas
- It must include full and open consultation with local stakeholders making full use of local expertise. Consultees should include farmers and their organisations, livestock organisations, veterinarians, hauliers, slaughterers, local authorities, the police, the army, EHOs, LACOTS, welfare organisations, environmental organisations, business organisations, the tourist industry and the public.
- It must be linked into Local authority emergency plans
- Above all the epidemic control policy must be regularly rehearsed

### II HOW EFFECTIVE AND TIMELY WAS THE GOVERNMENT'S RESPONSE TO THE EMERGING CRISIS NATIONALLY AND IN LOCAL COMMUNITIES?

27. There was an unacceptable delay before the Government acknowledged the seriousness of the crisis it was facing. We now know that there were two important delays which had profound effects on the spread and the control of the disease. The first was the three-day delay in introducing an animal movement ban. This contributed significantly to the wide, rapid spread of the disease. The second was the delay in using the army, which should have been called in immediately and certainly before the slaughter and carcass disposal programme became so behind and chaotic. Both these delays had profound negative effects on the course and duration of the epidemic. The LLI should provide its own estimate of the seriousness of these delays in terms of the numbers of outbreaks and animals slaughtered.

28. CLA members have reported much operational delay and confusion regarding line management, decision making and implementation of decisions. In particular, there are complaints of delays arising from lack of local involvement in decisions and confusion over responsibility for policy execution. Too often decisions had to be referred to London when they could have been decided quicker locally. It appears that decisions were often taken later than they might have been.

29. Examples sent to us include delays in:
   - informing all UK livestock farmers of the FMD outbreak in the UK and appropriate precautions to be taken
   - the establishment of a 24 hour, 7 day a week, helpline for livestock farmers
• disposing of culled animals
• agreeing to the use of burial as an alternative to the use of pyres. Both DEFRA and the Army should be reminded of the actions of the people of Longtown whose campaigning led to the change in policy on pyres nationally. The identification of future sites must involve local community consultation
• considering the case for ring vaccination followed by slaughter to control the spread of the disease (c.f. the approach adopted in the Netherlands)
• introducing the Livestock (Movement) and (Welfare) Disposal Schemes
• obtaining essential advice on risk assessment

30. Many of these delays would not have occurred if some of the main recommendations of the Northumberland Report had been followed. These delays may have partly arisen from an assumption – not justified by events — that the disease had not been present in the UK long before it was first detected. Had the alternative assumption been made, that the disease had already been present for some time, there might have been a greater sense of urgency behind efforts to get action underway to tackle it. By the time this outbreak was detected it had spread from the North of England to the South and into Wales. Future measures must be aimed to identify outbreaks earlier. Early on in the outbreak it became clear that key targets in controlling the disease were to shorten the time between diagnosis and slaughter to 24 hours on infected farms and to 48 hours thereafter on contiguous farms. For significant periods, these targets were not met. Indeed, there is plenty of anecdotal and documented evidence of severe delays.

31. Problems included:
• Lack of clear leadership and responsibility which led to delays
• Failure to recognise the effect that the contiguous cull would have on disposal capacity and failure to recognise the effect the animal movement ban would have on livestock welfare, resulting subsequently in the need for animals to be culled for welfare reasons. The effect may well have been that any benefit from the contiguous cull in lessening the spread of the disease were offset by an increased spread of infection caused by delays in slaughter and disposal. We are not in a position to judge the balance of these effects, but urge the LLI to draw conclusions from the data.
• Resource availability problems included lack of vets to inspect livestock, slaughterers to dispatch animals, and hauliers to remove carcasses; lack of laboratory facilities to undertake blood tests; lack of sleepers to construct pyres and of secure lorries to transport carcasses; lack of disinfecting teams to cleanse infected premises; and lack of suitable agreed sites for pyres and burial of animals. In the future consideration should be given to permit vets to slaughter affected animals on infected premises immediately. In addition local veterinary knowledge should be used more.
• An apparent reluctance among MAFF and National Assembly for Wales staff to make difficult decisions in case they were wrong. In contrast, the Army did not appear to avoid decisions; if they made mistakes they corrected them quickly and moved on.
• Problems and errors in locating premises and establishing their boundaries. Lack of understanding of the nature of land ownership with split holdings.
• Lack of rapid diagnostic facilities and the role, reliability and speed of serological tests for FMD merits close examination. These issues are taken up in detail in section VI below
• Failure to address the issues relating to farmed and park deer and camelids at an appropriate stage, and delays in addressing movement licensing.
• Lack of clarity on the question of FMD and wild deer

Local Authorities

32. Local authorities clearly have a pivotal role in the communication of information and policy where it affects rural communities. They need to be brought into the decision-making process at an early stage. Hazard and risk assessment protocols for biosecurity, carcass disposal, disinfecting, decontamination and access must be readily available. Policies may have to be adapted to local circumstances. The most obvious issue in this respect was the closure of public rights of way in rural areas. Local authorities quite rightly, initially, took a precautionary approach in instigating a blanket closure of access across land in livestock areas in an effort to prevent possible disease transmission. At that stage, given the lack of veterinary assessment and the almost simultaneous incidence of the disease in different parts of the country, the decision to close footpaths was a sensible response to the available information. The local authority response in the North West was quick and well organised—possibly because most Authorities have an emergency planning officer and regularly practice for emergencies.

Armed Forces

33. The use of the Army dramatically improved the logistical problem of dealing with huge numbers of animals. Such intervention came particularly late in Devon. However, army involvement did make all the difference in Cumbria. The inexperience of Army personnel in handling livestock did however initially increase distress to both the livestock and the farmers. This inexperience was of course to be expected and the Army coped well with a sharp learning curve.

State Veterinary Service (SVS)

34. It is essential that the SVS is well-trained, well-staffed and fully competent and ready to carry out the most cost effective and efficient infectious disease control.

35. In fact, the SVS has been greatly reduced in numbers of vets and under-resourced. This comment includes the Government funded veterinary laboratories in the SVS as well as the vets employed by MAFF/DEFRA. The contraction in the service reduced morale and the quality of the service in animal infectious diseases. The 2001 FMD epidemic underlines the importance to the nation of this service. Imported and emerging infections are added to those we already have in the UK. The importation of mosquitoes species into the UK in a warmer world will add to our problems of disease prevention and control.

36. It appeared that very few Ministry Vets had any practical hands-on experience of FMD. To avoid this in the future, the Service needs strengthening. There must be a sufficiently long-term view of the appropriate staffing and resource levels to allow for periodic surges in demand for its services at times of emergency. All staff should have regular training in FMD, even perhaps, including training sessions in countries where FMD is endemic. In addition there should be a reserve force, similar to the Army reserves, of retired vets both from the SVS and from private practice, again these reserves should be subjected to regular training and updating sessions. The levels of stress to both humans and animals could have been greatly reduced and the whole management of this epidemic could have been hugely improved by using local and veterinary surgeons where possible and English speaking veterinary surgeons with large animal experience and where locals were not available. These vets must be able to co-ordinate with trained administrative staff and
better use of MAFF and Environment Agency staff with past FMD experience, or at least rural experience.

37. It would appear that there is no postgraduate or specialist training in veterinary medicine to match that in human medicine. Only 4 persons last year received the Diploma in Public Health and Meat Hygiene recognised by the RCVS. There is no other professional training available in animal infectious disease. Scientists and research veterinarians who specialise in one or two different infectious agents have shown themselves unequal to the national emergency that FMD created. The concept of specialist training, at the postgraduate level, with qualification by examinations, is diverse and thriving in human medicine. Continued professional training is also well-established in human medicine. Scientists also become consultant virologists and microbiologists within the Royal College of Pathologists. The professional training of veterinarians and veterinary scientists to provide specialist services in animal infection along the lines developed for human medicine should therefore be urgently addressed.

38. It is important that the trained cadres of veterinarians and scientists in animal infection should regularly attend meetings with their European and other international colleagues and develop networks to ensure they are up-to-date and widely informed. Consideration should be given in veterinary training needs of such specialists for experience abroad in infections that might be imported.

39. The general standard of knowledge on viral infection, particularly FMD, and on the principles of viral diagnosis and vaccination has been severely criticised. There seemed to be little understanding of how vaccination to control an infection can also eradicate it from the vaccinated population, region or country. Participation in vaccination campaigns abroad for our SVS vets specialising in animal infectious disease is therefore necessary. For instance a visit to Uruguay to learn from their campaign to vaccinate 10 million cattle against FMD would clearly be beneficial. There was a tendency during the discussions about the role of vaccination for the centrally, politically-driven arguments to prevail. It was far from clear that dissenting or alternate views were given opportunities to be expressed. Where there are scientific doubts and uncertainties, and thus differing scientific opinions, the public interest is not served by damping discussion or concealing these differences.

40. There is a case for developing more regional expertise, to avoid the overstretching the centralised facility. This should include regional laboratories that under the umbrella of the FMD reference laboratory can carry out FMD diagnostic tests. It is quite safe in laboratory conditions to carry out tests on inactivated material that do not amplify infectious virus. Such tests are those for antibody, antigen or nucleic acid. Isolation of virus in tissue culture and infections of animals with FMD do require stringent conditions to prevent escape of infection into the outside world.

41. Regional veterinary officers should be able to act with their own discretion and receive support from trained professionals in the SVS and the regional laboratories. Local planning should take place to put into practice the principles and actions required in the overall agreed plan for the country. Questions should be debated and the process should be more open.

42. The bottleneck of sending all specimens to one laboratory, Pirbright in the case of FMD, and the monopoly such a laboratory has, should be avoided in the future. The reference laboratory should play a role in evaluating and validating commercially produced tests. Pirbright does not have this role, preferring to develop its own in-house tests.

43. The diagnostic service should be provided in a fully professional manner headed by a vet or scientist who is trained to provide it. A service to diagnose infection is quite different from research and is subject to different priorities. There was insufficient staff at Pirbright to report all the test results and they played no part in the education of the SVS vets in the field nor did they provide a service to answer enquiries.

44. A printed report was not provided to local vets or their clients the farmers who had their stock slaughtered. As Page Street commissioned Pirbright to do the testing Pirbright sent
them a protocol to assist them in interpreting the results. The vets who had seen the animals and sent the samples for testing never saw the results at all, but only heard them by word of mouth. This is unprofessional and poor practice. Errors could occur. There is a profound lack of understanding about the role of a laboratory in diagnosing infection. For example there were occasions when the correct samples were taken from the acutely ill animal(s) on a farm and no virus was found by isolation or antigen testing, the farm was still labelled as a confirmed infected premise.

45. The full extent of the epidemic or lack of it may never be known. The principle of taking specimens from suspected cases and contacts was not followed as recommended by the EU in Directive 85/511 on FMD. We ask the LLI to comment on this and provide its own estimate of the true extent of the epidemic.


47. It states that almost all agents known to have been weaponised are zoonotic pathogens. It also states that a deliberate release of a biological agent would likely be considered initially as a natural event, unless the agent had been spread overtly or on a massive scale, and would prove difficult to distinguish from a naturally occurring disease event. Although FMD is not considered a zoonotic pathogen (humans are rarely infected) the social and political stress and the economic cost and disruption caused by managing FMD without vaccination but a slaughter-only policy risks making it an attractive option for bio-terrorism. The LLI must give some attention to these considerations and offer recommendations.

48. In Wales contact with the National Assembly Ministerial team was established at an early stage and maintained throughout. However it soon became apparent that differences in interpretation between politicians and vets in Cardiff and Whitehall were leading to confusion. The ability to resolve issues, particularly over the contiguous cull and the killing of healthy animals, agreed on the understanding of common sense and local knowledge, was subsequently over-ruled by Page Street, with little or no understanding of the local circumstances. This led to further unnecessary bitterness, resentment, waste and alienated local support.

49. Consideration should be given to an evaluation of the merits of devolving SVS authority and responsibility to the Assembly. The power to make regulations under the Animal Health Acts is shared between the Secretary of State (England) and the National Assembly for Wales. Account should be taken of the situation in Northern Ireland and Scotland, as does the need in drawing up any future contingency plan of the implications for funding and discharging the policy, compensation and research.

50. Furthermore co-operation and access to facilities across the borders between England, Wales and Scotland must be established regarding any agreed disease control policy.

IV HOW READY WAS THE FARMING INDUSTRY TO HANDLE A MAJOR INFECTIOUS DISEASE LIKE FOOT AND MOUTH AND DID THE EXISTING NATIONAL AND EU REGULATORY REGIMES HAVE ANY INFLUENCE? WHAT MORE COULD BE DONE TO PREPARE FOR POSSIBLE FUTURE OUTBREAKS OF INFECTIOUS DISEASE?

Imports

51. Preventing further outbreaks of infectious animal diseases must be the over-riding priority for the Government. Prevention depends on identifying and investigating, as far as possible, the source of the outbreak, and the lapses in border controls which allowed it in. Action is needed from Government to improve surveillance at UK borders, including increased resourcing of Port Health authorities, Customs and Excise, Local authorities and
the Food Standards Agency. The UK (and the EU – because within the single market border controls are an EU matter) must learn lessons on border biosecurity from the USA and Australia. We expect the LLI to make a rigorous investigation of border biosecurity in the UK and, as far as possible, in the rest of the EU. It is essential that we learn the lessons of best practice where best practice is well established and ensure that these measures are introduced throughout the UK.

52. Molecular biology should be used to trace the origin of the FMD strain, its point of entry and the route of its spread. As well as detective work to gain circumstantial evidence of illegal or legal infected imports the sequencing of several genes and even the entire length of the nucleic acid genome of the epidemic FMD virus should be done. This would provide much more information than just one gene or part of one gene that has been published to date. Comparison can then be made with sequences of current and past isolates of O pan Asia virus. This project may take some time and require research investment to achieve. Current isolates from around the world could be gathered and sequenced (many are already held at Pirbright as are archived strains). This could allow the country of origin of our epidemic strain to be identified with greater accuracy than the present partial sequence allows.

53. Because meat is being imported illegally, concealed in fruit and vegetable consignments, vegetable and fruit imports should be subjected to similar inspections and charges as is done for meat imports.

54. EU and UK import controls are undoubtedly defective. The EU is discussing border surveillance but legislation is unlikely to be enacted before 2003 at the earliest. In the interim the UK may have to introduce primary legislation to tighten border security, adjusting this legislation later when the EU laws are enacted.

55. Current policy is based on maintaining the status of FMD-free, without vaccination. This policy cannot succeed unless the UK and the EU adopt strict frontier biosecurity measures as is done universally in the other principal FMD-free areas (Australia, New Zealand and the United States). Given the risk from bio-terrorism, given the freedom of travel from FMD-endemic areas (the whole of Africa and South America, most of mainland Asia and most of the Russia and former states of the Soviet Union), given the difficulty of maintaining strict biosecurity along the frontiers of eastern and southern Europe, which will be aggravated when EU enlargement takes place, the prospect of perpetuating FMD-free status in the EU and the UK is questionable in the long-term.

There should be better enforcement of existing import controls designed to stop diseased material being brought into the country. Controls should be tightened up on both commercial food imports and on imports by tourists and visitors. The costs of enforcing controls on commercial food imports should be borne by importers, not by taxpayers. This will help to discourage cheap imports which undercut higher-quality British produce. The right to import 1 kg of meat for personal use should be questioned.

Farmers: surveillance, disease spread and biosecurity

56. Starting from FMD-free status (without vaccination) the first priority in FMD control is to prevent the virus re-entering the country. We deal with this issue in paragraph 57 below. Once the virus is in the country, the next priority is to discover it at the earliest possible moment before it has spread from the primary infection site. Just as MAFF, other Government departments and agencies and local authorities were caught unprepared by the 2001 FMD epidemic, in truth, so too was the farming industry. Farmers, of course, accept responsibility for monitoring the health of the animals in their care. They must maintain best practice both in their vigilance in disease surveillance and in minimising disease spread by good biosecurity. It seems to be the case that the disease was already developing for days or even weeks before it was first discovered at Cheale’s abattoir in Essex.
By using the best possible information the two FMD Inquiries must try to establish length of time the virus had been in the country before it was discovered. It is in the interests of all that full consideration is given to whether and how the presence of the virus might have been discovered earlier.

In future, more training may be required in disease surveillance. Farming organisations together with the SVS should ensure that farmers and stockmen, and the operators of livestock markets undertake periodic ‘fire alarm’ tests to check, updating them as necessary, their knowledge of disease symptoms. If we are successful in suppressing FMD and other infectious diseases for long periods, even decades, it may become more difficult to maintain a high level of preventative measures. This tendency to slacken biosecurity and disease surveillance must be anticipated and guarded against.

57. Once the disease is established and been identified, the next priority is to prevent it spreading and to eliminate it. Biosecurity measures must be immediately enforced by farmers, all those visiting farms, and for animals and personnel in transit, at markets, and at abattoirs.

In the 2001 epidemic there is much to be learned from the routes through which the disease spread. It is important to establish the degree of spread from direct animal to animal contact and from infection brought in by farmers, vets, slaughterers, contract workers, DEFRA officials and others. The role of auction markets in disease spread should be evaluated, as should the role of vehicles including milk and feed lorries, officials' vehicles, carcass disposal machinery and haulage trucks. The significance of wind spread should be established. Allegations that farmers spread the disease knowingly must be investigated. Infection spread by wild mammals and birds also requires investigation.

There are similarly many questions concerning the effectiveness of each aspect of biosecurity: farm and road disinfection practices, vehicle biosecurity measures, clothing, carcass disposal equipment, and so on. The point of scrupulously careful analysis of the evidence to answer these questions is to understand better which measures worked and which did not. It is possible, though unlikely, that biosecurity was as tight as it practically could be expected to be. This is not a matter of allocating blame, but of discovering the efficacy of the various elements of biosecurity, and establishing sound scientific principles for biosecurity measures.

The LLI will not be able to do its job of advising on the better control of future outbreaks unless there is very careful analysis of evidence relating to these questions. This is not just a matter of understanding the evidence from the 2001 experience but understanding how it relates to the specific circumstances of the 2001 epidemic – the virus strain, the species infected, the farming systems, climatic conditions, geography and topography.

We are concerned that the inquiry has insufficient time, resources and possibly even authority to conduct the analysis required. We hope to be proven wrong on this.

58. Every livestock farm should be encouraged to prepare and implement a farm biosecurity plan. Clear hazard and risk protocols should be issued after consultation with concerned organisations, local authorities, veterinarians and farmers. Practical advisory leaflets should be produced and distributed. We do not consider that these plans should be made compulsory: farmers should recognise that it is in their own interests to take proper steps to protect their businesses from disease. To assist with biosecurity local authorities should take a favourable approach to applications for diversions of public rights of way out of farmyards or livestock holding areas.

59. There have been many examples from the 2001 epidemic illustrating the inadequate science basis of biosecurity measures. Tough biosecurity enforcement measures were applied in hotspot areas in the 2001 outbreak. The road sprayers which were eventually set up in Cumbria did not properly surround the red or blue box areas. Therefore anyone wishing to avoid them could, and did, because many people were, understandably, worried about the effect of sprays on vehicles. Consideration should be given to the enforcement by officials and police of minimum guidelines (vehicle and premises checks) in infected areas.
It has been suggested that multiplicity of animal movements and distances travelled from farm to slaughter were implicated in the rapid spread of the disease. However whatever further regulation of livestock markets and live animal transport emerges, this must be based on a very clear knowledge of the traditional stratified structure of the UK sheep, and to a lesser extent beef sectors. The system of hardier mountain and hill sheep breeds being successively crossed with more productive but less hardy lowland breeds is a well-established strength of the British system. This is accompanied by the movement of animals from upland summer grazing grounds to the more fertile, milder lowlands for over-wintering, calving and lambing. These movements are essential part of the spatial integration of the livestock industry, and in particular they are vital for the upland areas and the grazed environment they provide. Any recommendations regarding animal movements must take these structural features of ruminant livestock husbandry into account.

We focus on the 20-Day standstill rule. We ask the Lessons Learned Inquiry to attempt to quantify the impact a standstill restriction for sheep and cattle would have had on the spread of foot and mouth disease if it had been in place when the outbreak began. The Inquiry also needs to investigate the role of livestock markets and livestock dealers in the early spread of the disease both in terms of sales inside and outside the ring. The Inquiry should also consider the impact the 20-day standstill rule will have on the economic viability of the livestock industry if it is made permanent. In particular what impact it would have on the ability of farmers to carry on normal commercial practice, which benefits farmers in the uplands in particular. Even if a case can be made for such restrictions whilst a national epidemic is raging, further justification is necessary to justify them during normal – disease-free conditions. Clear scientific evidence is needed to show that the 20-day standstill rule has been properly evaluated in terms of disease prevention and impact on farm costs. It must also be demonstrated that other forms of on-farm quarantine or isolation have been considered. The CLA remains to be convinced about this. Our members consider that whole farm standstills are a step too far because they would make continued mixed stock farming too difficult. Isolation and quarantine arrangements rather than the continuation of the 20-day standstill rule are fundamental to good husbandry practice. The CLA recommends they are adopted nationally in order to prevent future rapid disease spread. Global trade and movement of people and animals, both legal and illegal, makes further outbreaks of infectious disease likely. On-farm quarantine and isolation of newly arrived animals thus seems a sensible disease prevention precaution.

Other biosecurity issues

Biosecurity and training for employees of Government, Government agencies, contractors and veterinarians should be investigated. There is anecdotal evidence that disease may have been spread inadvertently by those employed in disease diagnosis and carcass disposal, owing to lack of appropriate biosecurity protocols. Science-based biosecurity protocols must be established for veterinarians and ministry officials, for slaughterers, for hauliers and for heavy plant operators.

Disinfection and decontamination. We received many reports of delay and confusion, with different standards being applied in different areas. Doubts have been expressed by scientists of the scientific validity of some of the measures used. Scientific protocols must be drawn up, following open consultation with the relevant scientists in this field. It has been pointed out that disinfecting of very large machinery, as used in the culls and in carcass disposal, is difficult. Problems here must be investigated.

Biosecurity standards for carcass transportation and the administrative systems controlling them must be thoroughly reviewed.

As regards the meat industry, more local abattoirs and cutting plants are needed to support local and regional meat marketing initiatives, particularly those which are associated with landscape-linked projects such as the Countryside Agency’s ‘Eat the View’. The same applies to the organic livestock industry. As regards large-scale livestock production, it will
be difficult to reverse the market concentration demanded by the multiples and the
dedicated big meat plants that they require.

V ONCE THE SCALE OF THE CRISIS BECAME CLEAR, WAS THE RESPONSE
PROPORTIONATE TO THE IMPACT ON THE WIDER RURAL AND UK ECONOMY?

Contribution of rural economic activity to the national economy
66. Although most people in the countryside work in commerce, services, industry and the
public sector, agriculture still employs over half a million people. Furthermore, it supports a
food industry in Britain worth around £55 billion and a large array of ancillary industries
supplying goods and services.

67. The growth of small businesses within the rural areas has provided new employment and
generated additional income for rural communities. As a result, the rural economy has
made a significant contribution to the national economy in recent years. However, there are
still some serious concerns regarding the economic situation within rural areas:
• the vast majority of wards having low GDP per head levels are, surprisingly, rural;
• the overall employment level reported for rural areas hides the fact that much of rural
employment is part-time, casual, seasonal and self-employed and there is a high level
of hidden unemployment;
• the rural workforce have lower average incomes compared to urban workers;
• there are often wider differences within rural areas than there are between rural and
urban areas in terms of employment and income;
• there is a marked difference in the economies of accessible rural areas and the more
remote rural areas; and,
• new or micro businesses in rural areas face a number of barriers to growth.
• Access to affordable housing and transport is still a serious problem in many rural areas

68. Following the outbreak of FMD and damage to consumer confidence in British produce,
many rural businesses are facing financial crises. Therefore, to ensure that rural areas
maintain their importance within the national economy, the process of rural recovery needs
to be facilitated. Barriers to business development in the rural areas must be minimised. In
particular, problems relating to lack of infrastructure, finance and training provision must be
addressed. The need has never been greater.

Socio-economic relationships in the rural economy
69. The FMD crisis has both identified and exposed the strong linkages between economic
activities within rural areas that constitute the rural economy and within regional and
national economies. The crisis exposed the indirect impact agriculture has on other
industries, in particular, tourism and leisure. Economic impact studies on the immediate
effect of FMD have shown that ancillary industries in the rural economy do not operate in a
vacuum independent of the primary industry managing the landscape, i.e. farming. When
agriculture suffers disease or other shocks the knock-on effect to the rest of the rural
economy is sharp and severe. Estimates made by Regional Development Agencies (RDAs)
and Government show rural income effects and job losses outside farming as two to three
times larger than farming.

70. The importance of these linkages is now being better understood, at national, regional and
local level, and must not be lost. RDAs should now see why balanced economic
development across all their areas is so important. They should appreciate the value of
regional food groups, and of policies to encourage improved marketing of agricultural produce and diversification into a wider range of economic activities. Local authorities and RDAs are beginning to work together, and closer working is certainly needed. The interdependence of the rural economy also demonstrates the need for positive policies for rural areas at national and European level. CLA proposed such policies in its submission to the Independent Policy Commission on Food and Farming, in its policy documents: 'A Fresh Start for the Rural Economy' (June 2001), 'Rural Regeneration-Removing the barriers to diversification' (August 2001) and its 'Manifesto' of April 2001. All are available on the CLA's website (www.cla.org.uk). CLA made similar proposals to the Rural Task Force, on which CLA President, Anthony Bosanquet sat, set up by the Prime Minister to recommend measures to ameliorate the wider impact of FMD. CLA sounded a serious note of caution that many businesses and individuals could continue to feel the adverse economic effects of FMD well into 2002.

71. It remains difficult at this stage to quantify the effect of the FMD epidemic on rural businesses coming out of the winter. CLA is undertaking work aimed at providing better information in relation to the private sector. Publication by the Government of its own autumn 2001 economic survey would provide a basic level of information against which trends could be assessed.

Compensation and relief

72. The 2001 FMD epidemic has shown us that there must be a thorough review of the acceptable principles for sharing the cost of acts of nature such as FMD and the cost of the policy response. There is an argument that freedom from such disease is a public good and therefore the costs should be publicly borne for the good not only of the future of farming in the UK, but also of the wider rural economy. The reasonableness of applying this principle has been strengthened by the 2001 FMD epidemic. It has been clear that the economic, social and indeed political effects have been extremely widespread.

73. Analysis by DEFRA (presented at the December 2001 FMD conference in Brussels but not otherwise in the public domain) showed that the magnitude of the economic costs in the food and farming sectors were estimated at nearly €5bn of which the public sector has borne around €4bn, farmers have borne €550m and the food chain and other businesses have carried €300m. The economic cost to tourism and leisure sectors measured by the loss of gross value added was estimated as €5-6bn, much in rural areas although some in urban destinations. Because the losses to the wider rural economy were often replaced by consumer spending in other sectors of the economy, the Treasury estimated the overall impact upon GDP in 2001 at less than 0.2 %. However, this displacement does not diminish the hardship suffered by the rural businesses, as there is no mechanism for the urban winners to compensate the rural losers. At the very least, this should be part of a wider discussion of the appropriate safety-net arrangements for exposed industries such as agriculture and rural tourism.

74. The current rules provide compensation only for those suffering capital losses from the compulsory destruction of livestock to protect animal health for the greater good. This principle itself was widened as compensation – although on much lower terms – was offered for animals involved in the Livestock Welfare Disposal Scheme. However, the procedures for deciding the size of this compensation and their operation during the 2001 epidemic have caused considerable confusion and dispute. Government appeared willing to accept valuations from unqualified valuers which meant that discipline was lax. Furthermore, guidelines for the compensation rates were changed during the epidemic. The rates themselves have varied widely over time and location. This caused obvious ill-feeling for those receiving lower compensation. The most aggrieved group was those farms under D-notices which suffered the costs of not being able to sell fatstock because of movement restrictions but received no compensation at all. This should be remedied by a better structure for commissioning valuations to include a certified list of professional valuers and a suitable audit methodology.
Where legitimate losses or costs have been incurred, whether directly or indirectly, payments of compensation or for services rendered should be made speedily. This will assist the cash flow of the businesses affected and, through the rural multiplier, reactivate the rural economy. In particular:

- Some form of compensation or relief is justified—and certainly desperately needed by those businesses which have had the strictest restrictions placed upon them e.g. those farms under Form D restrictions which, in many cases for the duration of the epidemic and beyond, lost their major (and sometimes only) source of income and cash flow.
- Those farmers who depend on revenue from grass lets have equally been affected. Compensation is justified here too.
- Payments are also justified to firms which have provided support services for slaughter, haulage, disinfecting and so on. Often these businesses have had to invest in entirely new equipment at their own cost. Payments to businesses providing services such as haulage or disinfecting appear have been delayed in part because there was inadequate guidance at the outset about the evidence required to validate claims. Those dealing with payments should have made clear at the outset what evidence was needed, to expedite claims with minimum bureaucracy.
- At the moment there is no mechanism to help these people who have suffered severe deprivation through no fault of their own other than their geographic location. The result of this deprivation has been far reaching in the more remote areas for example, of Cumbria and North Lancashire where the economy is especially dependent on agriculture. There are many parts of these counties where tourism is not an option. When farmers are without income and no one is travelling—everyone suffers from the post office, village shop and local pub to the school bus provider and farm and veterinary supplies firm.

Compensation provisions in the Animal Health Bill currently in Parliament. The CLA has already urged MPs and Peers to reverse the basic assumption contained in Schedule 3A where compensation of 75% of the full value of the compensation available is to be payable for animals slaughtered on “infected premises”, until a satisfactory risk assessment has been carried out.

The implication of awarding only a proportion of the available compensation to the farmer as a matter of course has serious consequences not to mention being inherently unfair. This element appears to be premised on the Bill drafter’s assumption that the standard case is one where the farmer is at fault. This is a highly questionable basis and one which may have a negative impact on public perception.

The ARC Addington Fund and the RABI have provided considerable help to the agricultural sector. As far as we are aware, no similar assistance has been made available to other rural businesses affected by the FMD crisis.

Some small businesses were particularly hard hit because they were more difficult to identify and help. Small tourism enterprises, rural pubs and restaurants, bed and breakfasts, farm and wildlife parks, pony-trekking and other equine businesses, non-agricultural trades, craft and other enterprises whose main outlets are the agricultural shows and the village retail stores struggling to make ends meet fall into this category, as do those enterprising farmers who had spent money diversifying into another farm related business.

Government Help to Individual Businesses

The Government did take measures to alleviate the impact of FMD on rural businesses, and these were certainly welcome. They included the following:

Interest free deferral of £200m of tax, VAT and National Insurance contributions was made available. Tax, VAT and rate deferments were widely taken up. Some VAT offices were
calling in deferred payments without due consideration for personal circumstances and this issue was raised with central Government. The CLA has consistently called for these deferrals to be renewed and converted to reliefs depending on the financial state of the business.

81. Enhanced support for hardship rate relief was broadly welcomed, but many businesses did not qualify as their rateable value fell outside the relatively low limits applied. These limits were subsequently raised.

82. The Government's Small Loan Guarantee Scheme was not expected to offer great help to hard pressed enterprises that they could not already achieve through negotiation with their local banks, who on the whole took a sympathetic line with affected businesses.

83. £74 m Business Recovery Fund - The RDAs' direct grant assistance to rural businesses affected by FMD was well received by those who could benefit, and the RDAs could have supported many more in similar difficulties, if funds had permitted. As winter approached, many thousands of businesses were facing cash flow problems, especially those whose income is normally seasonal. It took time to set up funding, and in some cases this was directed more at investment than business recovery, but delivery improved over the course of the outbreak, and all the RDAs ended up with oversubscribed funds.

84. Match funding of private charitable donations (£14m) was welcomed, but it was not well understood why corporate charitable donations for hardship relief were not also matched.

85. The Farm Business Advisory Service which was suspended at the onset of FMD returned with five days' free advice for farmers, but only for those who had lost stock. In many ways, these were the farmers who least needed immediate advice. The farmers who needed advice were those tied up by restrictions. Many of these had viable, successful diversifications in place therefore the help they needed was short-term financial assistance to stay afloat until the business could be re-opened. Nonetheless, the scheme has been very popular and is to be commended.
RECOMMENDATIONS

- A full Government-directed survey should be undertaken on the adverse effects of FMD on rural businesses and of the effectiveness of the measures taken so far in meeting the scale and nature of the crisis. The RDAs may be the most suitable organisations to undertake such a survey since they have already accumulated much information on the regional economic impact of FMD via their Foot and Mouth Task Forces;
- Consideration of converting VAT and rate deferrals into reliefs;
- Existing businesses to be eligible to participate in longer-term regeneration aid;
- State Aid rules. Government to lobby the EU for re-examination and revision of State Aid rules in relation to CAP reform and the transfer of funds from Pillar 1 to Pillar 2 in order to make it easier for projects using local or UK sourcing of products to advertise that fact and access RES support.
- All rural business funding mechanisms should be reviewed against standards of speed and bureaucracy. They should be more accessible. They should be facilitated, probably regionally. Application procedures must be made simpler, shorter and more easily understood. Minimum threshold levels for grants should be lowered;
- Rural Development Programme. Simplify grant application procedure and adjust it so that funding is available for new and improved abattoirs and meat cutting plants;
- Development of a Rural Business Advisory service available to all types of small rural enterprises.

The CLA recently published a policy framework for business diversification - Rural Regeneration. Proposals specifically relevant to post FMD recovery of the rural economy are:

- Leisure, tourism and recreation - better sources of advice, development and promotion of more alternative all weather visitor attractions to extend the season and encouragement of private/public sector partnership;
- Food processing and marketing - identification of essential infrastructure needs; processing, distribution, market opportunities and IT availability, a fresh interpretation of EU legislation and directives and investigation of opportunities for derogation where appropriate;
- Planning - amend planning guidance to support wider rural development and diversification, recognition of agricultural buildings as brownfield sites, revised guidance on signing (environmental and social) in rural areas to attract customers to rural businesses.

Management of public access

86. Farmers are confused about biosecurity issues in relation to access. There were occasions when they themselves were expected to observe strict biosecurity standards when the visiting public, walking the same land, were not. The situation should be clarified and proper hazard and risk assessments applied to both sets of land users so that these contradictions are resolved.

87. In the 2001 outbreak considerable problems arose because responsibility for the opening and closure of public rights of way was spread between local authorities and DEFRA. As local authorities have the local knowledge regarding location to most rights of way through the definitive map, and have quicker lines of communication, they are better positioned to
deal with the management of public access. Local authorities may also have knowledge of
the ownership of affected land aiding necessary consultation. This information cannot be
gained from an agricultural holding number or grid reference held by DEFRA. These factors
point to the local authority being better equipped to organise closure and reopening of
access. Nevertheless, the starting point for such decisions must be the Chief Veterinary
Officer’s veterinary risk assessment.

88. Case histories should be taken to ensure that facts are properly recorded before memories
of events fade and information disappears. This is particularly important in determining what
future action should be taken for excluding or restricting access whether it relates to a
public right or to various rural events and/or attractions. In the absence of good
scientifically based assessment of relative risks of disease spread, a precautionary
approach is justified, as was applied to the closure of rights of way at the outset of the 2001
epidemic. Once the risk is fully understood then use of risk assessments can be employed.

89. The initial lack of authoritative risk assessments for public access to paths, access areas
and attractions led to confusion among land managers, local authorities and the public.
Several different risk protocols, with accompanying guidance, were produced. The situation
was complicated by several successive Amendment Orders affecting the legislative basis
for closing and reopening paths. The application of this legislation to closures made at
different times is far from clear. For example, such was the confusion on footpaths, there
were open ones within three miles of infected North Yorkshire premises and closed ones
thirty miles away in East Yorkshire.

90. This confusion was further compounded by the myriad of signs used to identify closed and
subsequently reopened paths. Many authorities used their own styles which effected no
continuity. Attempts were made at providing telephone and web based information points to
varying degrees of success. Making available clear information on the ground and through
other means is essential to clarify where public access should or should not be exercised in
the event of a crisis.

91. There are further concerns over the management of public access during the outbreak:

- It is illogical and unfair that restrictions applied to the movement of farm family members
  and staff on premises subject to D Notices are not also applied to the public, wishing to
  walk on paths over the same land.

- There should always be consultation between local authorities and owners over
  reopening paths which have been closed for justifiable reasons. There should also be
  consultation with parish councils - which should be well placed to advise on risks on a
  local basis. In some areas, access was successfully administered by parish councils
  under the direction of the local authority. The bodies representing land managers and
  the public should also be consulted fully.

- Footpaths, bridleways and byways open to all traffic (BOATs) should be closed where it
  is necessary to prevent spread of FMD.

92. In future outbreaks the precautionary principle should be invoked until sufficient scientific
evidence is available to operate a more specific approach. Until that point, all access to the
countryside needs to be restricted, but on a time limited basis, for example, a two-week
period. During this time the exact nature of the disease can be assessed and future actions
relating to public access agreed. This will avoid the difficulties found with re-opening the
countryside during the 2001 epidemic. Further decisions on access should be based on risk
assessment protocols, evaluated by local veterinary officers. Local authorities should be
required to maintain maps indicating which paths cross holdings on which livestock are
kept. An early priority for authorities in producing Rights of Way Improvement Plans under
the Countryside and Rights of Way Act 2000 could usefully be to review the scope to divert
paths away from farm buildings and farmyards used by livestock. Such diversions would
help to minimise conflicts over access, and its management, in future outbreaks, as well as
providing additional public safety and farm security and biosecurity benefits.
VI WOULD THE USE OF VACCINATION HAVE MADE ANY DIFFERENCE TO THE SCALE AND/OR DURATION OF THE OUTBREAK, AND ITS WIDER IMPACT?

93. Vaccination can be used to help prevent an FMD outbreak occurring or to help contain the disease once it has broken out. Scientific opinion on the use of vaccination in either of these ways is divided. There is strong public opinion, particularly on the continent, that the eradication of FMD by slaughter (with or without vaccination) resulted in too many healthy animals being killed. It must be desirable to control future outbreaks with fewer animals slaughtered in this way.

94. During the UK outbreak of FMD the vaccination debate has been obfuscated by lack of information, and in some instances misinformation, available to the public, in particular to farmers, and at times apparently to Government. It is essential that the facts relating to the science of vaccination and especially to FMD vaccination are speedily established and made public. Whilst virologists recognise the value of vaccination in controlling and even eliminating virus infection, Government failed to disseminate the facts of vaccination, so that many farmers and even some veterinarians did not comprehend the mechanism of virus elimination by vaccination. A consensus view on vaccination by virologists especially in the field of FMD was never sought by Government and the lack of input from virologists to decision makers may well be fundamental to the lack of understanding at all levels of the facts concerning vaccination. As a matter of fact, vaccination was not used in the UK in the 2001 epidemic though it was used to control the same outbreak when it spread to the Netherlands. It was successfully used to control an epidemic as large as our own in 2001 with minimal slaughtering out in Uruguay, which had been infected from Argentina with a South American FMD strain. We look to the Royal Society Inquiry on Infectious Diseases in Livestock to consider the merits of the different approaches adopted by other countries.

95. It is of paramount importance that we should have the ability to diagnose FMD accurately, speedily and on farm. Accurate, quick diagnosis would avoid the need for much slaughter. It will not be acceptable in future to kill such a high proportion of healthy animals because diagnostic procedures are too slow to allow animals considered at risk to live until results are obtained.

The infectivity of FMD in the current outbreak was over-estimated and the epidemic strain was unlikely to produce an aerosol plume except from large pig farms (e.g. the Waugh's farm initially in Northumberland). Stopping all animal movements and biosecurity with regard to the contiguous holding boundaries should normally be adequate whilst waiting for results from a rapid test to detect the presence of virus on farms suspected of infection. The PCR test to detect virus in an acutely ill animal, or one in the later stage of incubation, could have been extremely useful. An antigen pen-side test could be used initially on symptomatic animals, but a more sensitive test, the PCR (polymerase chain reaction) test, ought to be available too. PCR tests, which are extremely accurate and speedy, should be validated and registered without delay. It was disappointing that efforts made by a well-established diagnostic virology laboratory and by other virologists to introduce a PCR test were rejected by MAFF.

96. The role, reliability and speed of serological tests for FMD merits close examination. There were substantial concerns about false results. Some have argued that animals should be slaughtered on the basis of a veterinary inspection alone. Others consider that serological proof must be provided before animals can be slaughtered. However, if PCR pen-side testing is introduced, concerns about serology become less urgent.

According to evidence from the veterinary profession, particularly those with extensive experience of the disease, many of the veterinary officers used in the 2001 outbreak had little or no past experience of farm livestock, resulting in a substantial number of false diagnoses on "clinical" inspection. Experienced vets inform us that diagnosing FMD in cattle is relatively easy and cattle so diagnosed should be slaughtered immediately, but it is much more difficult in sheep. It is suggested that only the sheep showing clinical signs of FMD should be slaughtered immediately with the farm closed and the remainder of the flock quarantined until serological tests are completed.
The CLA has been reluctant to give its own definitive answer to the question of vaccination. We have heard a range of scientific opinions on the following questions:

- What is the practicability of vaccinating the necessary proportion of the farmed livestock, said to be at least 80% depending on density of livestock and contacts between individuals? What is the necessary fraction to give ‘adequate’ cover to housed, enclosed or extensive livestock? Are sufficient stocks of registered vaccines available? There were reportedly 5 million doses of O Manisa suitable for use against the 2001 epidemic strain available in the European vaccine bank in March. Why was this not used? Do we know enough about the strains posing a threat to know which vaccines to give?

- Does the inactivated whole virus vaccine as prepared and stored as stock to be made up for use, remain the gold standard for an effective vaccine? How much protection is afforded by newly developed vaccines? For how long? Is there any real necessity to wait for newer FMD vaccines, the development of which may be years away? Is the currently available vaccine good enough to control an epidemic of FMD where there is a good match between the infecting virus and a stock vaccine strain?

- The practicalities and costs of organising and recording vaccination of all species of domestic animals susceptible to infection must be investigated. Farmers are well accustomed to vaccinating regularly all species of domestic livestock for a variety of diseases.

- Can vaccinated animals (which will have antibodies) be differentiated from animals which have the virus and are infective? It is necessary for such differentiation tests based on non-structural proteins to be readily available, repeatable and practical on the necessary scale. Such tests must also be validated internationally and embraced by the OIE. How soon can this be achieved? Can such differentiation tests be conducted at the level of an individual animal or are they applicable only on a herd or flock basis?

- Vaccinated carriers would only shed virus from the mouth and throat, and then combined with antibodies. They would already be subject to movement controls and it has been stated that they have never been known to cause a new outbreak. Has the issue of vaccinated carriers, been exaggerated?

- Was there a substantial scientific basis to the Government’s much remarked decision to decline to introduce protective vaccination of cattle coming out to grass?

Definitive statements must be made in response to such questions, and where there are true areas of uncertainty, these must be identified, together with suggestions for the necessary further information or research to provide answers.

There is a special context in which vaccination must be considered, if only as an exception and in conjunction with appropriate biosecurity. This is for rare breeds, hefted flocks, pedigree stock, exotic domestic animals such as the camels, zoo animals, laboratory animals and domestic pets. The example of the Westminster herd which actually caught FMD in the 1920s and was then isolated and allowed to recover indicates that this has been regarded as a practical option in the past. The validation of the non-structural protein marker test would allow vaccination of hefted and valuable animals, including those in game parks and zoos, without compromising national FMD control policy.

In the future, we must avoid such extensive slaughtering of healthy animals. The closest examination must be given to the role of vaccination in helping to achieve this goal in any future outbreaks. In the short term suppressive vaccination may help reduce the pressure on the system of slaughtering and disposal. This was precisely the way it was used in the Netherlands last summer to buffer pressures on their disposal capacity. We have urged the Royal Society Inquiry into Infectious Diseases in Livestock to consider the options for such use of vaccination in detail. We also urge that consideration be given to options of ‘vaccination to live’ i.e. protective vaccination as well as suppressive vaccination. Such ‘protective’ vaccination has the additional advantage that restocking can begin with
vaccinated animals. It would also provide a ring fence around infected holdings (ring vaccination) and healthy vaccinated animals could be consumed safely and prevent welfare and economic issues becoming a major problem. It would not be necessary to close down as much of the countryside and there would be far less disruption to tourism. We suggest that in conducting such analyses, there should be three assessment criteria

- reducing the number of animals which have to be slaughtered;
- reducing the time elapsed before the epidemic is stopped, and
- minimising the time that markets and the rural economy are disrupted by animal and human movement restrictions and loss of export markets.

100. The present regulatory framework is in certain respects designed more for a trade in healthy animals than for animal health per se, and this conflict should be addressed. The trade restrictions which result from the use of vaccination are cited as a major argument against this tool of disease control. When vaccination has been used, under certain circumstances, trade can be halted for as long as two years (see OIE Standards, Guidelines and Recommendations relating to FMD). The economic impact of the loss of trade is itself underestimated. The values and volumes traded of affected animals and meat products may seem relatively small, leading to the conclusion that the effect of loss of disease free status is minor. This completely misunderstands the nature of markets. Prices are determined at the margin, and relatively small changes in trading circumstances, with products in relatively inelastic demand, can have disproportionate effects on prices and thus the viability of production. In short, the economic effect of the loss of export markets is not correctly measured by the current value of those exports. Therefore, the absence of the ability to export UK livestock and their products would be a profoundly damaging blow to UK agriculture with serious effects for the food processing industry in addition to costs to the rural economy and the rural environment as a whole. Many farmers find it hard to understand why exports are allowed into this and other European countries from areas where FMD is endemic and where vaccination is used.

101. A further obstacle to the use of vaccination was confusion over the perceived attitude of food retailers and consumers to consumption of products from vaccinated animals. We understand that the major retailers all agreed to sell vaccinated products, but this was never made clear. We look to the Royal Society Inquiry into Infectious Diseases in Livestock to make a definitive statement on the safety of consumption of food products from vaccinates. During the period prior to regaining FMD free status trade can sometimes be permitted but only under stringent conditions, in particular the deboning of carcasses. In some cases this can be prohibitively expensive (lambs, for example). In the context suggested above regarding the use of an internationally recognised differentiation test, we ask the Royal Society to investigate if such precautions are still necessary.

102. Even acknowledging the safety of produce from vaccinates there may remain a problem if vaccines required for a new outbreak are not registered in the country concerned. In this situation it would be illegal to sell produce from animals vaccinated. This underlines the importance of having stocks available of internationally registered vaccines.
VACCINATION AND DIAGNOSIS RECOMMENDATIONS

• Improved diagnosis will be of paramount importance in dealing with future outbreaks
• New, speedier and more accurate diagnostic techniques, such as PCR, are urgently required. Research is also needed into making pen-side diagnosis biosecure
• Vaccine research, both human and animal, requires more funding.
• Communication must be improved and co-operation established between veterinary scientists, veterinary virologists, human disease virologists, pathologists and epidemiologists.
• Communication must be improved and co-operation established between Government and commercial research centres.
• There should be increased research into vaccines and vaccine techniques
• There should be increased research into vaccine-use in different scenarios
• There should be increased research into field application of vaccine
• There should be increased research into post-vaccine surveillance
• Urgent efforts must be made to achieve international recognition for the NSP test to differentiate between vaccinated and infective animals
• Vaccine facts relating to FMD should be given maximum publicity. Information and experience of successful use of vaccination in other countries worldwide should be made publicly available and publicised.
• We need a scientific epidemic and research centre with responsibility for vaccine research, development and field trials through to the registration of vaccines.

VII WHAT COULD HAVE BEEN DONE DIFFERENTLY TO ALLEVIATE THE ECONOMIC, SOCIAL AND ANIMAL WELFARE IMPACT OF THE UNPRECEDENTED LEVEL OF CULLING AND DISPOSAL?

Animal Welfare

103. One of the horrors of the 2001 FMD epidemic was the magnitude of the animal welfare issues caused by movement restrictions which were a necessary part of the chosen control strategy. The CLA believes that the logistical effect of the contiguous cull and animal movement policies was not factored into the disease control decision-making at the outset but were dealt with on an ad hoc basis as the welfare problems emerged.

104. There have been numerous reports of unacceptable methods of slaughter being employed, some of which were shown in the media. Animal suffering occurred because animals were out of place-unable to be fed, housed, or give birth in conditions normally expected for good welfare standards. The large numbers culled under the welfare scheme exacerbated the carcass disposal problem. There are reports of ewes lambing during the transport to the abattoir and to Orton for slaughter. The magnitude of these welfare costs has not been estimated and it now may not be possible to assess its scale. The very large numbers of animals slaughtered under the livestock welfare disposal scheme indicates the enormity of the animal suffering which took place.
105. Lack of a consistent culling policy resulted in unnecessary animal deaths, together with the additional suffering for the farming community. Any future cull must be organised by experienced local operators, trained in risk assessment and in evaluating physical conditions and topography.

106. The stress caused to those caring for the animals, and those whose animals were culled, should not be underestimated or ignored. The incineration of so much perfectly good food shocked the poorer nations of the world which registered their response to the FAO. Such appalling welfare issues and costs should be avoided in future outbreaks. Permission to move animals for welfare reasons should be based on local assessment based on national, science-based risk-assessment protocols. There needs to be better communication between MAFF/DEFRA and the local authorities regarding animal movement licensing.

Human Welfare

107. The human welfare costs of the FMD epidemic were recognised early on. The psychological impact, particularly on children and the affect on their education, must not be under-estimated. The CLA pays tribute to the dedication of the charitable organisations including the RABI, the ARC Addington Fund, the Samaritans and the Rural Stress Network who did an enormous amount to raise and distribute funds and provide counselling and advice to those affected. Many of the causes of stress were directly due to MAFF’s inefficiency - e.g. 300 dead cows within 50 yards of the kitchen door for 15 days; wrong notices being served; slaughter teams turning up but no MAFF officials; collection wagons turning up but no slaughter teams etc.

Environmental impact

108. Animals should be slaughtered in places where they can be readily collected for disposal (e.g. not in stalls - (where carcasses became stuck) or on manure (which could hasten their decomposition). Slaughtered animals should be disposed of within 48 hours. Some animals were left dead in fields or yards on many occasions for up to 2 weeks, and on several reported sites for more than 2 weeks, readily accessible to vermin of all types, increasing the risks of spreading the disease to other livestock as well as within populations of wild animals.

109. Transport. The impact of transporting carcasses long distances and the risk of contamination during the journey from leakage should be addressed.

110. The 2001 FMD epidemic highlighted the difficulties associated with rapid, large-scale disposal of animal carcasses. Disposal techniques chosen have not only had a direct and massive emotional and economic impact because of the public horror of large funeral pyres and mass burial sites. These impacts persisted long after such disposal methods ceased to be used (the last funeral pyre was on May 7). The disposal method also raised significant short-term and long-term environmental issues.

111. The burning of carcasses on huge pyres should never be allowed to happen again. Apart from public revulsion, it raises concerns amongst landowners regarding the short and long term effects of environmental pollution: air-borne pollutants and the seepage of effluent into the soil and water table are a serious concern, as is the burial of ash from funeral pyres on-site, resulting in the contamination of their land, particularly where Over Thirty Month Scheme animals which could contain potentially BSE-infected material are buried. Landowners have questioned why the recommendations for the treatment of pyre ash going to landfill are more stringent than those for ash that is buried on site. This is particularly relevant given the recent contaminated land regime where landowners can be held responsible for cleaning up any contamination on their land. In the economic context, the disposal techniques chosen have a direct impact on land values.
Disinfection and decontamination. The environmental impact of extensive use of disinfectants and rodenticides should be evaluated. Research should be undertaken evaluating the risk arising from slurry disposal. Research should also be done into the best methods of disinfecting and decontaminating. Indeed, is this possible in the case of large pieces of equipment used for the culling out of farms and the lorries used in transport? How much of the decontamination and disinfection was of any use at all? Organic matter protects viruses from disinfectant and it is clear that the culling teams and their apparatus and the transporting of infected carcasses spread FMD in the UK. It has been proven to do so elsewhere. This is another important reason behind suppressive vaccination on farms already infected before transporting animals to slaughter and rendering as in Holland: Animals at their peak of virus shedding were not transported as vaccinated animals but already infected animals were left on farms for some days before transport. Nor was such a huge amount of virus released on an infected farm exposing the culling team and their vehicles and fomites.

A consistent and effective disposal mechanism is required to take account of these environmental concerns. Landowners and the general public must have confidence in such a system. It should not be necessary to overrule existing environmental rules and recommendations when dealing with carcass disposal.

We urge the Anderson Inquiry to consider carefully the relative merits and problems of the disposal options, and to indicate where further research is required. Our own judgement is that facilities should be improved so that there are more options to deal with disposal, particularly including a strategic rendering and incineration capacity. For reasons of animal welfare, efficiency and sustainability (reduction of energy use and carbon emissions), we recommend that DEFRA should assess livestock and livestock by-product disposal needs nationally and draw up a livestock disposal policy, ensuring that there is regional provision for livestock disposal by rendering and incineration. Quite apart from FMD, there is increasing need for regional disposal facilities for risk material. Cull cows, SRM material, butchers waste such as bones, often have to be transported long distances at huge expense. The Intervention Board could be criticised for closing some of the regional disposal plants – e.g. Cheales at Brentwood – on grounds of ‘rationalisation’. The CLA recommends that a national rendering plan should be drawn up, to establish where new rendering plants are needed and to prevent the long-distance transport of contaminated/infected or potentially contaminated/infected animals and material.

There should be close investigation of the relative costs of holding larger strategic reserves of such capacity or creating the capacity in a short period when suddenly required. Sites for carcass or ash disposal should be assessed well in advance for public health and environmental risks. Full and open consultation must be undertaken with the public and local authorities. Indeed, the long-term effects of the airborne pollutants created from the burying of carcasses in mass pyres, ash distribution and the burial of infected carcass materials in addition to the intense use of disinfectant have yet to be established. Research should be undertaken to see if there is any evidence of pollution from the 1968 burial sites.

Impact of Livestock Movement and Public Access Restrictions on the Environment

An English Nature report published in September 2001 indicated that the most serious effect of the FMD outbreak has been on grazing patterns on habitats. This has led to a reduction and in some cases no grazing through culling or movement restrictions, or overgrazing through movement restrictions. This had led to a mixed picture for wildlife. The CLA hopes that a full evaluation of the impact of such restrictions will be published by conservation authorities in England and Wales.

Public impact

There is more to do to repair the damaged image of the countryside as perceived by the general public. The CLA sees this as a critical element of its work this year. Unless the
public's confidence in the countryside is restored, the rural economy will continue in its state of recession.

VIII HOW EFFECTIVE WERE THE COMMUNICATIONS SYSTEMS FOR HANDLING AND RESPONDING TO THE OUTBREAK?

118. The 2001 FMD Outbreak demonstrated that the inter-relationship and lines of communication between Government agencies, departments and local authorities clearly needs re-assessing and strengthening. From the CLA’s view point, communication between the various agencies did not appear to function and roles were not clarified or even established. There must be more devolved decision making, making full use of local knowledge and expertise. The failure to consult more with local veterinarians was a major failing in the handling of the epidemic.

119. If joined up Government is to work, communication must be improved and a framework of responsible interactive participation drawn up. Local authorities should be consulted and informed before public announcements are made regarding policy and its implementation.

120. Many of our members’ experience in dealing with the disease as it affected them gave us an appalling insight into the day-to-day problems, heartache and profound distress they experienced in 2001. Some aspects of this situation were unavoidable, others resulted from a total lack of competence, understanding and appreciation of how to handle an epidemic of this proportion. Government planning was obviously inadequate for this purpose.

121. Clear, consistent and comprehensive communication is important in building trust, avoiding misunderstandings and ensuring transparency and accountability. In particular the 2001 FMD outbreak illustrated the following:

- MAFF and the National Assembly for Wales should have developed better methods to keep in touch with all farmers within infected areas and their neighbours. The introduction of a movement ban must be communicated to all farmers directly and immediately. A combination of web sites, cascade phone messaging systems, local bulletins on local radio and letters might have provided authoritative information to more people more quickly. While it is desirable for all farmers to have Internet connections, it is far from being a reality at present and Internet access should not be assumed.

- At the outset Ministry helplines were grossly undermanned by staff who, regrettably, appeared poorly briefed and unsure of their duties.

- MAFF/NAW must have better systems in place for informing its staff of rules and schemes and of changes in them, to improve the consistency, accuracy and precision of advice available. For example, lack of clarity in MAFF guidance over payments for disinfecting work led to confusion and in some cases unnecessary expense.

- We are dismayed by the lack of statistical information regarding the epidemic that was provided by MAFF/DEFRA during the epidemic and the confused presentation which still prevails. According to a Parliamentary answer (8 January 2002), there were 2,026 infected premises, of which 1,728 were sampled and 1,327 tested positive, and another 257 cases slaughtered on suspicion, of which 248 were sampled without positive result. There were then 7,178 cases slaughtered as dangerous contacts, (3,305 as part of the contiguous cull), of which 396 only were sampled (218 from the contiguous cull), with one anomalous case involving sheep initially testing positive. This presentation is, however, somewhat confused since it is stated in a note that 220 (i.e. additional) dangerous contacts (including 120 contiguous premises) and 54 (i.e. additional) slaughter on suspicion cases which were sampled later tested positive and are included in the total of infected premises, whereas the 401 infected premises which tested negative remain counted as infected premises. In addition, no new infected premises have been published since 30 September 2001 but some 50 cases sheep have since been slaughtered as dangerous contacts following serological testing, (although cattle
on the same farms were neither tested nor culled). The statistical information provided by MAFF/NAW (on the web and in written and oral briefings) must include details of: the numbers of positive and negative cases relating to the number and species of animals slaughtered in confirmed outbreaks, those slaughtered on suspicion, those slaughtered as dangerous contacts, or as contiguous culls; but also specify the location and number of farms affected in each of these cases with the results of sampling, positive or negative, and a clear acknowledgement where this did not take place.

- This information is very important. It is critical to evaluating the data on which the contiguous cull was based and it is critical to establishing whether the contiguous cull was scientifically justified. It must be a matter of great concern that the statistics quoted above indicate that only 1,327 out of 9,461 premises culled tested positive for FMD and that some 16 premises were therefore slaughtered for each one confirmed. The apparent failure to test more than 5.5% of dangerous contacts reinforces the impression that this was never more than a firebreak category. In addition, it is very important for stakeholders (including farm business suppliers) and the public to be given full information to give them a better understanding of the epidemic. Farmers whose holdings are classified as cases but which subsequently tested negative have the right to have their farms taken off the list of cases. The same applies to farms neighbouring these "non-cases" and which were slaughtered as dangerous contacts.

- New corrected lists should be published immediately, listing farms which tested positive to the disease, farms which tested negative and those which were slaughtered but not tested. It is in the public interest that this information is published.

- Information already available to MAFF/NAW through the Census and IACS returns did not appear to be available to the Intervention Board for the purposes of checking applications and claims under the Livestock Welfare (Movement) and Livestock Welfare (Disposal) Schemes. This increased delays. Any restrictions on making information within one part of MAFF/DEFRA available to another part of MAFF/DEFRA (e.g. under the Data Protection Act 1984) should be removed - or at least be removable under emergency disease controls.

- All risk assessments and protocols should have been available to farmers and the public at the outset, rather than being developed in haste as the crisis unfolded. If an access risk assessment had been available at the outset, for example, there could have been clear guidelines for paths, access areas and attractions which could be kept open, for paths, areas and attractions which had to be closed, and for paths, areas and attractions which had to be subject to individual risk assessment.

- Farmers subject to the varying procedures need/needed advice which is tailored to their own situation and that on neighbouring farms around them, on issues such as: whether and at what stage they can relax disinfecting routines; disposal of cattle that have gone over 30 months pending the reopening of the Over-Thirty Months Scheme; restocking procedures; disinfecting requirements and routines; and land management activities. Farms subject to D Notices need particular support due to the uncertainty which hangs over their businesses.

122. When regular stakeholder meetings at national and regional levels commenced there was a noticeable improvement in communication and strategy. We commend the decision to continue these meetings in the form of national and regional Rural Affairs Fora.