

EXOTIC ANIMAL DISEASE PREVENTION, PREPAREDNESS AND RESPONSE PARTICULARLY FOR FOOT AND MOUTH DISEASE (FMD) AND 'MAD COW DISEASE' (BSE)

The situation

1. There are many exotic animal diseases that pose a significant threat to Australia and our livestock industries. FMD and BSE, of known diseases, stand alone because of their major national economic consequences and, in the case of BSE, the human health implications. An FMD/BSE framework, or adaptation, could be used for managing new or emerging diseases of equivalent significance.
2. The incidence of FMD throughout the world has been increasing in recent years. Countries which for many years have been FMD-free, for example Japan, the Republic of Korea, Taiwan, the UK, Ireland, France and the Netherlands have recently experienced serious FMD outbreaks. In addition, a number of countries that have obtained different levels of FMD freedom after many years of eradication activities have had new outbreaks, for example Argentina and Uruguay.
3. Increased movement of people and trade in goods, illicit activities and the range and nature of FMD virus strains (some of which are very virulent and aggressive) are rapidly changing our risk profile. Of particular relevance to Australia is the Asian strain of FMD, which has been present in countries in our region for more than five years, is highly virulent and aggressive and is difficult to detect in sheep. The risks arising from possible bio-terrorism also need to be considered.
4. A major FMD outbreak in Australia will have a significant impact on the Australian economy, particularly on rural and regional areas. The overall economic cost could be up to 3.5% of GDP. An initial study by the Australian Bureau of Agricultural and Resource Economics, which focused only on livestock industries, found that from detection to eradication (assuming 6 months) the loss in trade alone would be \$5.8 billion with significant job losses occurring in the livestock and associated industries. The trade aspect is particularly important to Australia given our regional economies' high reliance on exports. Exports of many animals and animal products would cease in the event of an outbreak, at least in the short term.
5. As in the extensive UK outbreak in 2001, there is likely to be a significant downstream impact on other sectors of the economy (such as small regional businesses, transport, tourism) in addition to agriculture. However, the UK's circumstances are different to Australia's, particularly in terms of EC cross subsidisation and low reliance on livestock and livestock products trade by the UK. The Productivity Commission is therefore undertaking a study into the full potential social and economic impact of an FMD outbreak in Australia and will report in May 2002.
6. Countries such as the USA, Canada and European nations have been reviewing and enhancing their prevention and preparedness arrangements in the light of experiences from the FMD outbreaks in the UK and other countries. Australia has moved expeditiously to deal with border issues. Having developed a specific risk management framework for emergency animal diseases, it is now imperative that governments respond to other risk areas that have been identified (see paragraphs 24 and 26).

7. BSE was first detected in the UK and has since occurred in other European countries, as well as Japan. The economic consequences of BSE are significant, but unlike FMD, which is highly contagious (average incubation period 5-7 days) and spreads rapidly, BSE is insidious where cases appear sporadically with an average incubation period of 5 years. Most importantly BSE poses a significant human health risk, giving rise to major consumer concerns. Compared to FMD there is a relative lack of scientific knowledge and understanding of BSE.

Developments since June 2001 COAG

8. Australia's animal disease preparedness system has been recognised internationally as amongst the best in the world, however overseas outbreaks of FMD and BSE indicate that our systems would be inadequate to deal with a serious animal disease occurrence. COAG's June 2001 meeting noted that Australia's animal disease and emergency response plans were being reviewed to better cater for a major animal disease emergency, such as FMD. COAG agreed to a high priority review of national whole of government frameworks for the prevention, preparedness for, and management of, a major national animal disease emergency.
9. A significant amount of work has been undertaken across Australia since mid 2001. The key actions include:
- An analysis of adequacy of legislative powers that would be required in an animal disease outbreak and identification of gaps in some jurisdictions that need to be rectified urgently. As a back-up measure, the Commonwealth is proposing to amend the *Quarantine Act 1908* in the Autumn 2002 Sittings to authorise States/Territories to use those powers if necessary;
 - All jurisdictions are reviewing their animal disease and emergency plans and enhancing cooperation between agricultural and emergency services agencies and with agricultural industry organisations;
 - Jurisdictions are undertaking staff training and in many cases testing aspects of their emergency response capabilities for a major animal disease outbreak;
 - Agricultural agencies are progressing reviews of their animal disease prevention and preparedness capabilities, including resolution of complex technical policy issues;
 - The Commonwealth has provided \$596m over 4 years to enhance border surveillance capability;
 - Most existing programs that might be used by jurisdictions for relief and recovery from the consequences of a major animal disease emergency are listed in Attachment 2; and
 - The Deed of Agreement for Cost Sharing of Emergency Animal Diseases between governments and industry has been signed by nearly all jurisdictions including animal industry peak bodies.
10. An outbreak of FMD or BSE is likely to require a national response. Therefore, a proposed **national FMD coordination framework** (Attachment 1) has been developed by the Taskforce. The framework augments current arrangements in which States and Territories are the primary authorities in combating the disease outbreak in accordance with AUSVETPLAN and emergency management arrangements. Under the national framework it is proposed that the peak body for a major animal disease emergency would include COAG (or a subset of affected jurisdictions) supported by a High Level FMD Management and Recovery Group comprising heads of a small number of

Commonwealth and State agencies directly involved in the major issues of the emergency and the Australian Local Government Association. This Group would be chaired by the Department of the Prime Minister and Cabinet and would coordinate and oversee whole of government actions on a national basis. This Group would oversight national communications to assist in the coordination of information management and to ensure everyone was appropriately informed. The Group would oversight the work of two main support groups – one dealing with disease response and the other with relief and recovery.

11. While disease control and eradication is the constitutional responsibility of State/Territories, an FMD or BSE outbreak would have ramifications affecting all jurisdictions. The National Emergency Animal Disease Management Group (NEADMG), comprising senior officials of Commonwealth, State and Territory agriculture departments, industry representatives and emergency services agencies, would bring a national focus to the disease response. NEADMG (which is referred to in the cost sharing deed - see below - as the National Management Group) would make most high level, national strategic decisions on disease response matters. The Consultative Committee on Emergency Animal Diseases would provide scientific and veterinary advice and make recommendations to the combatant State(s)/Territory and NEADMG. These frameworks already exist and are underpinned by AUSVETPLAN and emergency management plans in the various jurisdictions. They are in the process of being enhanced to cope with a major national animal disease outbreak such as FMD.
12. A Commonwealth-State Policy Taskforce comprising representatives of key agencies in each jurisdiction and chaired by the Department of the Prime Minister and Cabinet would be activated in the event of an outbreak and would coordinate, on a national basis, the range of relief and recovery policy initiatives including social welfare and broad economic adjustment issues. It is likely that delivery would primarily rest with relevant community services and economic development agencies in each jurisdiction (see also paragraph 32).
13. Coordination of **Commonwealth** agencies in a major animal disease outbreak would focus mainly on socio-economic consequences including managing trade and tourism issues. Input on these aspects would be coordinated by a Commonwealth committee under the leadership of the Department of the Prime Minister and Cabinet (this committee is not separately shown in Attachment 1) The Commonwealth whole-of-government plan will be finalised by the end of March 2002.
14. Input of agricultural agencies and other affected agencies in controlling the disease, such as Emergency Management Australia, would be through the provisions of AUSVETPLAN and the government/industry Deed of Agreement for Cost Sharing of Emergency Animal Diseases (which has been negotiated over the past four years and covers sharing of costs between all these jurisdictions of response activity). The cost sharing deed should be signed by all parties by the end of March 2002.
15. **State and Territory coordination** would be through current emergency management committee arrangements which integrate the technical aspects of animal disease control and eradication with emergency management and socio/economic recovery frameworks to provide a whole-of-government response. Each State/Territory is reviewing and upgrading their plans where necessary. It is particularly important that each State/Territory works with neighbouring States/Territories to identify and resolve any issues that could affect cross-border animal disease eradication measures.

16. The valuable role of **local government** agencies, which are an integral part of State emergency service arrangements, must be reflected in appropriate State/Territory plans particularly in terms of local impact management and recovery. Local government agencies are close to the local community, understand community needs, are well placed to assist in response and recovery and have some capacity to provide personnel and equipment. In a number of cases, local governments work closely with State/Territory emergency services and recovery service providers in training volunteers and planning and providing logistical information and services. More generally, the importance of integration of all aspects of emergency management with local community goals is well recognised in local government emergency plans. When local governments and local people are involved in managing their own crisis they are better able to recover from the events that often result in unexpected community impacts such as economic downturn and industry closures.
17. It is recognised that **industry** will be involved and contributing. Industry will incur additional costs in implementing acceptable livestock identification and traceability. This is a cost of doing business as a result of changing world trading requirements particularly with the EU. Livestock industries have indicated their preparedness to commit funds and accept responsibility to be prepared for an outbreak of FMD/BSE and contribute during an actual outbreak response. The Deed of Agreement for Cost Sharing of Emergency Animal Diseases currently being signed by government and industry provides certainty of funding of the initial phase of an outbreak and demonstrates industry's commitment. Under the agreement, sharing of costs is subject to review once industry's costs reach 1% of gross value of production and work is needed on this. There is a need to acknowledge industry's role and to continue to work constructively with industry.
18. Other important roles for industry, which so far have been neglected, are now being accepted. Industry is developing and implementing on-farm biosecurity plans and disease prevention measures. Significant funds are being committed to industry training and awareness programs particularly by the beef and sheep industries. Primary and secondary industries have skills which should be utilised in an FMD/BSE outbreak, especially management and technical skills as well as equipment. Animal Health Australia plays an important role bringing together a government and industry partnership.
19. It is proposed the underlying principles of national coordination for a major animal disease emergency be encapsulated in a **Memorandum of Understanding (MOU)** between Heads of Government. The MOU could cover establishment of trigger points for activating the national plan, roles and responsibilities of the various parties and how they should act in an emergency (building on existing legislative and constitutional arrangements), principles for media/communications management, , principles for use by States/Territories of powers under the Commonwealth *Quarantine Act 1908*, and principles for ensuring on-going training of staff and testing of appropriate plans. The objective is for the MOU to be signed in mid 2002. Separate schedules to the MOU could be added later on issues such as relief and recovery.
20. These response and recovery frameworks proposed for FMD can also be adopted for BSE but the emphasis would, at least initially, focus on managing potential major public health concerns. Health agency representatives, with whom agricultural agencies are working closely, would take a key role in relevant committees. Health departments are

currently finalising a vCJD (the human variant of BSE) emergency plan. The BSE segment of AUSVETPLAN has recently been updated but more work is needed to better align/coordinate health and agriculture plans.

21. The response to a case of BSE would initially involve a costly increase in testing of slaughter cattle over 30 months of age and tracing suspect animals/herds over at least the previous 5 years. However, there are likely to be many fewer animals slaughtered compared to FMD which would also mean a significantly lower requirement for rapid response emergency services and logistics. BSE in Australia would have a major marketing impact on the cattle (in Japan consumption of beef declined by 70% as a result of a single BSE case.) and, potentially, sheepmeat industries (there are now some questions being raised in the UK about the presence of BSE in sheep which may be masked by scrapie).

Critical issues yet to be finalised

22. Australia has well prepared and tested response capability for dealing with localised outbreaks of emergency animal diseases and has justly earned an international reputation for leadership in this area. The fact is, however, that diseases such as FMD and BSE are of significantly greater dimension in terms of management and impact. A gap and risk analysis of prevention, preparedness and response measures has shown that more needs to be done to improve our current state of preparedness (particularly pre- and post-border) to deal with such events. These gaps are identified in paras 23-35.

Prevention and preparedness

23. Minimising the risk of an animal disease outbreak through adequate **preventative and preparedness measures** across all jurisdictions in Australia is a high priority. This is a shared responsibility for all jurisdictions and industry - one weak link puts the nation at risk. Adequate preventative and preparedness measures are necessary for early detection of an animal disease outbreak. Early detection will increase the likelihood of rapid control and eradication of the disease. Early containment and eradication will significantly reduce the cost to governments and industry of responding to a disease outbreak and will also significantly reduce the downstream consequences on individuals, the agricultural sector, regional Australia and the national economy.
24. High priority issues currently being actioned by the Primary Industries Ministerial Council include:
 - a. Amending **legislation** in some jurisdictions to ensure authorities have all the necessary powers to act;
 - b. Enforcing and auditing prohibitions on **swill feeding** – the practice of swill feeding to pigs is a high-risk means of introduction of FMD and there is a significant exposure in illicit activity in urban fringes;
 - c. Developing the details of a national **livestock standstill arrangement** that would come into play immediately on confirmation of an FMD outbreak – an appropriate risk-based nationally coordinated livestock standstill is fundamental to minimising the spread of an FMD outbreak;
 - d. Placing in context two **feral animal** issues, the potential spreading of FMD and the potential role of feral animals in being able to demonstrate freedom from disease. Appropriate risk mitigation measures need to be implemented;
 - e. Implementing a rapid and accurate **animal tracking system** supported by Commonwealth/State/Territory legislation. This has already been agreed by Primary

Industries Standing Committee and is considered a critical success factor. The ability to rapidly and accurately trace movement and ownership of susceptible species is fundamental to the response to an FMD or BSE outbreak. The lack of adequate systems in each jurisdiction is a major weakness at present. It is highly probable the EU will move to individual animal identification of all susceptible species; it is already required for cattle. Japan may follow. If this eventuates, trade and market access requirements will demand that Australia comply. In view of the seriousness and urgency of this matter, governments need to consider intervening to accelerate the process;

- f. Identifying location and means of **disposal of carcasses** of animals and transportation methods in advance of an outbreak is critical and environment agencies, local government and State/Territory governments need to have plans in place;
 - g. Developing and implementing a comprehensive emergency **information management capability** that effectively links systems in all jurisdictions to support a national response – there are significant limitations in the current fragmented capability to access and manage emergency animal disease information on a national basis;
 - h. Providing adequate **scientific, laboratory and veterinary capability and capacity** to enable monitoring and surveillance, quick sampling, testing and diagnosis, and professional epidemiological analysis which are critical to the response to an FMD outbreak. Parts of the EU, USA and Canada are upgrading their scientific, laboratory and veterinary capabilities following the UK outbreak;
 - i. Upgrading **modelling** of the potential epidemiological behaviour of an outbreak to provide a decision support framework;
 - j. Improving general **awareness and education** amongst landholders, livestock industry personnel and the rural community of the appropriate course of action in an animal disease emergency – early detection and consequential actions are critically important to contain an FMD outbreak. Enhanced strategies are needed to maximise livestock owner awareness of exotic diseases and to encourage early reporting of unusual incidents to veterinary authorities, as well as awareness as to how to behave in the presence of a suspect incident;
 - k. Pre agreed criteria for the use of **vaccination** as a component of controlling an FMD outbreak, and access to secure supplies of vaccine;
 - l. Developing appropriate **trade response and zoning strategies**, including use of FMD-free zones to be internationally negotiated but based initially on State/Territory borders. This preparatory measure will help reduce the scale and length of an impact of an FMD outbreak for our meat, livestock, dairy and possibly other export industries. These industries are updating their FMD trade response strategies;
 - m. Providing on-going **training** against national competency based standards for staff in each jurisdiction to ensure the national capacity to operate effectively from initiation of an emergency – significant gaps have been identified in each jurisdiction;
 - n. Developing agreed public/media **communication strategies** so that clear, consistent messages are delivered during an outbreak response by designated spokespersons;
 - o. Developing and implementing biosecurity plans by **industry**, and identification and training of industry management capability – industry has a key role alongside government in providing resources in an FMD outbreak.
25. It is the responsibility of each jurisdiction to review priorities and assess the adequacy of resourcing so as to respond to identified deficiencies, particularly those listed in paragraph 24. Each jurisdiction should report to COAG by December 2002 on their capability in these areas against agreed performance criteria.

26. While there is a low risk of a BSE occurrence in Australia, we are not totally risk-free. Other countries are assessing our risk status. The Task Force considers that the response model developed for FMD will be appropriate for managing a BSE incident provided the following additional issues are also addressed:
- ongoing implementation and audit of ruminant feed bans;
 - highly effective border security especially relating to imported material used in animal feedstuffs;
 - rapid development and implementation of national standards, with legislative underpinning, relating to fats and oils, animal feedstuffs, rendering and pet foods;
 - substantially increased surveillance activity to meet international requirements, particularly on sampling and testing of suspect animals;
 - development and validation of a rigorous test to detect proteins in animal feedstuffs; and
 - identification and DNA sampling of all cattle exported to countries with medium/high risk of BSE. For example, in the case of Japan it is possible that Australian cattle exported live to that market may be subject to BSE testing at slaughter. Identification and DNA sampling are part of measures being taken to provide a means of resolving any false positive test results that might occur in cattle of Australian origin.
- As new knowledge of BSE becomes available changes may be needed to beef and sheepmeat processing practices to separate and destroy at-risk material.
27. Rectification of Australia's existing deficiencies, particularly in information management and animal tracking systems, enhanced producer awareness, adequate vaccine access, appropriate diagnostic capacity, communication strategies and livestock standstill arrangements, will ensure that Australia is adequately prepared to respond to an FMD outbreak.
28. Some of these issues (particularly animal movement tracking system and comprehensive information management systems) are likely to take up to 18 months to develop and implement because of the need for investment and extensive liaison with all stakeholders to gain their commitment, followed by development of the technical specifications, manufacture and testing of the systems and adoption by the users. An effective animal tracking system will need to be backed by Commonwealth/State/Territory legislation.
29. Leadership to ensure resolution of these preventative, preparedness and response issues is being shared between the States/Territories and the Commonwealth. This work includes identifying the extent of resource requirements and development of agreed performance criteria. The Primary Industries Ministerial Council will receive a detailed update on Australia's capabilities in April 2002 and it is anticipated that individual jurisdictions would identify, following that meeting, the specific resources that would be applied to rectify high-risk deficiencies in each jurisdiction. These issues will also need to be considered in the light of the Productivity Commission's report (due in May 2002 – see [Attachment 3](#) for terms of reference) on the economic and social impact of an FMD outbreak in Australia. COAG senior officials will need to be advised of progress.

Relief and recovery

30. The objective of the response to and recovery from an FMD outbreak is to return the social and economic fabric of society to normal as quickly as possible. Response capabilities have been tested with the Longford gas emergency in Victoria and Newcastle Disease in NSW. The systems in place at the time were pushed to their full limit by those events and, while improvements have been made in some areas, it should be noted that these examples were both 'single jurisdiction' events.
31. The Productivity Commission's forthcoming report on the economic and social impact of an outbreak of FMD will assist in further examination of relief and recovery issues. At the time this report is delivered, jurisdictions will need to examine a range of matters likely to include:
 - what measures might be required to manage relief and recovery given the relative differential impact on communities, regions and business;
 - associated incentives and disincentive arrangements; and
 - a range of equity issues.
32. Following the Productivity Commission report, the Commonwealth and States/Territories should consider developing a set of principles for managing relief and recovery arrangements.

Simulations (validation of systems)

33. Coordination within and between each jurisdiction is vital for an effective whole of government response to a major animal disease emergency. The Commonwealth and most States/Territories have already held or plan to hold simulation exercises. These exercises are investigating aspects of their preparedness measures and test their response plans. These individual tests need to be aligned across the country to minimise duplication of testing individual components of each system and to ensure the outcomes of each test are shared with all other jurisdictions in Australia. The tests also form an integral part of the planned major national simulation.
34. Planning has commenced for a major **national simulation** to be held in the week commencing 8 September 2002 which will be one of the largest emergency preparedness events undertaken in Australia involving all jurisdictions simultaneously. It is to be organised, conducted and reviewed independently of those who will be tested in the simulation. It will include testing of:
 - Peak level arrangements across and within jurisdictions;
 - Emergency roles and linkages across Commonwealth agencies; and
 - Emergency roles and linkages across and within State/Territory agencies.
 However, as mentioned in paragraph 28 some critical elements of a national response framework will not be in place by that time (eg livestock tracking and information management systems). This simulation will be used as a learning exercise to demonstrate areas where further remedial action may be required.
35. Emergency management best practice is to test preparedness for particular events (eg defence forces, airport services, marine pollution, bushfire services) at regular intervals. It is important that preparedness for animal disease outbreaks also be regularly tested. Further simulations should therefore be held to build on the lessons learned from the national FMD simulation later this year, and into the future.

Next steps

36. The Primary Industries Ministerial Council will consider a report on FMD/BSE preventative, preparedness and response issues in April 2002 and at its subsequent meetings. Officials will develop principles for managing relief and recovery following release of the Productivity Commission report in May 2002. The Taskforce will develop an MOU to underpin the national framework for consideration by COAG by mid 2002. Preparation for the national simulation will continue, with the simulation to be held in September 2002.
37. After the results of the simulation are available, the Taskforce will prepare a further report for COAG drawing together the key matters arising from the simulation, progress on improving prevention, preparedness and response capability, an assessment by each jurisdiction of its preparedness status against agreed performance criteria and an assessment of funding implications for (and between) each level of Government. The report will be submitted to COAG by December 2002.

Recommendations

38. It is recommend that COAG:
 - A. Note the report of the Taskforce, particularly that adequate prevention, preparedness and response capability is essential in mitigating the extensive social and economic impact an outbreak of either FMD or BSE would have on Australia;
 - B. Agree that major animal disease emergencies such as FMD and BSE and their consequences have to be tackled on a national basis and led by appropriate agencies as outlined in the national coordination arrangements in paragraphs 10 to 12 and Attachment 1;
 - C. Agree that a Memorandum of Understanding (MOU) between Heads of Government be developed to, amongst other items, establish trigger points for activating the national plan, define roles, responsibilities and coordination during a major national animal disease emergency, with close integration of responsibilities and actions within and across jurisdictions. The objective would be for the MOU to be signed in mid 2002, with separate schedules added later on issues such as relief and recovery;
 - D. Agree that the prevention and preparedness issues raised in paragraphs 24-26 continue to be progressed through the Primary Industries Ministerial Council as a matter of high priority and that each jurisdiction needs to assess resource implications, respond to identified deficiencies, and report to COAG on its preparedness in December 2002;
 - E. Agree that, as soon as possible after receipt of the Productivity Commission report, the Commonwealth and States/Territories develop a set of principles for managing relief and recovery arrangements, taking into account relevant common elements of emergency management and response being developed in other reviews, for reporting to COAG by December 2002;
 - F. Note that a major simulation with third party oversight will be held in the week commencing 8 September 2002 to allow capability gaps to be identified and remedied, and agree that regular follow-up simulations be held consistent with emergency management best practice;

- G. Agree that a further report be prepared for COAG by December 2002 incorporating the outcome of the national simulation, progress on improving national prevention, preparedness and response capability, an assessment by each jurisdiction of its preparedness status against agreed performance criteria, and an assessment of funding implications for each level of Government.

Attachment 1: Draft National FMD Emergency Coordination Framework

Attachment 2: Existing Commonwealth/State Personal Assistance measures

Attachment 3: Terms of Reference of Productivity Commission Inquiry