

Preparing your business to survive

Risk management planning for an emergency animal disease outbreak



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Would your livestock business survive an Emergency Animal Disease outbreak?

All livestock businesses face the prospect of market closures from natural disasters, global financial crises, animal welfare incidents, chemical residue incidents and emergency animal diseases (EADs) such as anthrax or foot-and-mouth disease (FMD). Although Australia is free from FMD, the impacts of an outbreak could be devastating for the economy and individual businesses. Animals on farms that became infected would be culled and movement restrictions would be placed on livestock and certain products. Export markets would also close, potentially for some years, which would have an impact on domestic markets.

The likelihood of such disasters may be low, but the damage (even to well-established businesses) would be high. Deciding how much to invest in preparations to reduce the impact of a disaster can thus be difficult for business managers unless the preparations provide clear benefits to the business during both 'peacetime' and disasters.

Could your business survive the following?

- Overnight closure of international markets and potential loss of business agreements (see Sections 3.2.1 and 3.2.4).
- Movement restrictions on livestock, products, fodder, people and equipment (see Section 3.2.2).
- A build-up of livestock numbers and product on farm and other premises. For livestock, this could lead to feed shortages and damage to soil and pastures in stock holding areas (see Section 3.2.3).
- Implementing disease control activities requiring time, equipment and other resources (see Section 3.2.5).
- Media and public scrutiny (see Section 3.2.6).

If in doubt, this manual is designed to help you prepare you for such situations.

The 2001 United Kingdom FMD outbreak

The 2001 FMD outbreak in the United Kingdom had the following impacts and good planning could avoid this level of devastation if a similar outbreak occurred in Australia.

Duration of the Outbreak:	8 Months
Animals Depopulated:	6 Million
Cost:	Over £8 billion (approximately \$19 billion AUD)
Re-establishment of trade:	18 Months following eradication of disease

Source: <http://footandmouth.csl.gov.uk>

Section 1: Introduction

Purpose of this manual

This manual is designed to assist livestock enterprises prepare a Risk Management Plan (RMP) for EAD outbreaks. As a manager of a livestock-related enterprise, this manual can help you by:

- explaining what will occur during an EAD outbreak using foot-and-mouth disease as an example (Section 3)
- outlining the main risks for your business (Section 4)
- analysing how the risks relate to your business and evaluating which risks you should address (Section 5)
- providing a list of possible actions you could undertake—either to prepare for or to respond to an outbreak (Section 6)
- explaining the process for implementation, communication and review of your risk management plan (Section 7).

Completing a 30 minute plan for your business

This manual is supported by a number of sector-specific brochures that summarise the content in this document and provide templates for managers to complete a 30 minute plan for their business. Links to these brochures are provided at the end of this document.

Brochures are available for the following enterprises:

- grazing enterprises
- pig enterprises
- dairy enterprises
- feedlot enterprises
- livestock transporters
- saleyards
- meat processing enterprises.

Further resources to help you plan include industry biosecurity plans and AUSVETPLAN manuals (listed in the reference section) and Livestock Biosecurity Network contacts (for members represented by the Network) listed at www.lbn.org.au

Key points

- Understand what may occur during an outbreak and think about how your business will respond.
- Maintaining day-to-day biosecurity is key to EAD preparedness.
- Record the Emergency Animal Disease Watch Hotline number: **1800 675 888**

This manual provides information relevant to a generic EAD outbreak. More specific information is available through the individual AUSVETPLAN disease strategy manuals and enterprise manuals. These documents are freely downloadable from the AUSVETPLAN section of the Animal Health Australia website at www.animalhealthaustralia.com.au/programs/emergency-animal-disease-preparedness/ausvetplan

Biosecurity is defined here as it is under farmbiosecurity.com.au

“a set of measures for protecting a population from infectious diseases at the national, regional and farm level. It is about managing risks to meet the goals stated above. Owners, managers and handlers of livestock share a responsibility with governments, scientists, veterinarians and the community to help protect Australian livestock from the introduction and spread of infectious diseases, as well as for reducing the incidence of existing diseases.”

Many industry and government resources on improving biosecurity are available online and links to these resources are provided at the end of this document.

Section 2:

What is risk management planning?

Every business has developed ways of reducing the impact of disruptions that occur from time to time. For example, if your business uses machinery it is important to minimise the risk of running out of fuel or spare parts and it is common to store them on site. This is an example where if a shortage occurred it would generally have a relatively small impact on the business.

But what about incidents or crises large enough to potentially put you out of business, even if these are unlikely to happen? What steps would you need to take if your business had its mains power supply cut off for a month, was caught in a long lasting drought, or the main breadwinner was off work for an extended period with serious illness? Could you manage with reduced income for a year or more while, at the same time, your expenses went up?

Risk management planning provides a systematic approach to preparing for and responding to a potential crisis as described in the following. It is about developing a practical plan for how your business can prepare for, and continue to operate after, an incident or crisis. A risk management plan will help you to:

- identify and prevent risks where possible
- prepare for risks that you can't control
- respond and recover if an incident or crisis occurs.

Preparing a risk management plan will help your business to recover more quickly if an incident occurs. You may not be able to predict every kind of incident that could threaten your business, but you can develop a plan that covers a range of incidents (e.g. natural disasters, computer problems, staffing issues, EADs).

Preparing a risk management plan for your business can also be a good way to demonstrate to banks and other stakeholders that your business is equipped to manage and overcome risks.

Organisations manage risk by anticipating, understanding and deciding whether to modify it. Throughout this process they communicate and consult with stakeholders and monitor and review the risk and the controls that are modifying the risk.

(AS/NZS ISO 31000:2009 Risk management—Principles and guidelines)

2.1 Developing a risk management plan

The Australian and New Zealand Standards for Risk Management (AS/NZS ISO 31000:2009) recommend a well-established process for developing a risk management plan which has been adopted for this manual (Figure 1).

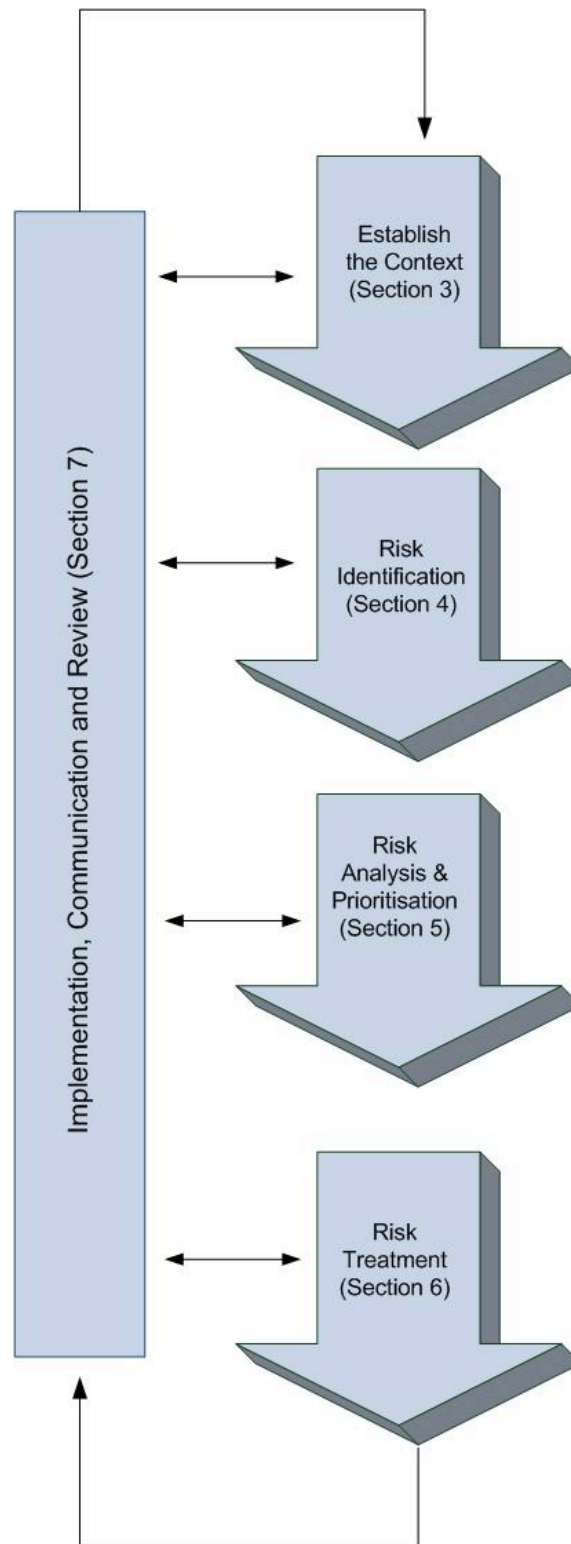


Figure 1 AS/NZS ISO 31000:2009 Risk Management Process. Each section of this manual guides you through each step.

Step 1: Establish the context (Know your business)

Key to risk management planning is an in-depth understanding of the business. This involves an understanding of the environment in which the business operates, areas in which it is vulnerable and things that are critical to its continued operation. Typically input from more than one person is required.

You will typically need to:

- Have at hand an inventory of livestock, products and assets and a list of the main type and amount of inputs and outputs. You may need to do a desk-top stocktake of the business. This will ensure you and others involved in planning are talking about the same thing and that important areas for consideration are not left out e.g. stock feed, cash and labour requirements.
- Identify what will be important to the survival of your business during a crisis. This is typically the availability of finance and staffing, but can include other things such as the ability to move stock to different locations during the production cycle (e.g. for breeding or finishing).
- Identify your business stakeholders and think about things from their perspective. A stakeholder in your business is a person, organisation or business that *can affect* or *be affected by* the decisions or activities of your business. Stakeholders typically include:
 - suppliers: those your business buys from (e.g. livestock and fodder producers, veterinary services, and those that supply other inputs like fuel)
 - customers: those your business typically sells to (e.g. abattoirs, milk processors, other producers, exporters)
 - service providers: those who help you to keep the business running (e.g. consultants, transporters, agents, vets, accountants, mechanics, IT support personnel), and also essential service providers (electricity, gas and water)
 - employees
 - regulators: organisations who oversee aspects of your business (e.g. government agencies, local council, environmental and food safety agencies).

Step 2: Risk identification (Identify potential business disruptions)

What can happen to disrupt your business? During this step in the process you are primarily concerned with identifying the many ways your business could be disrupted. At this stage:

- Think creatively. Note down all possibilities without being too concerned about how likely they are or how large their impact may be.
- Disregard any controls you already have in place and just note down the risk. For example, if you have two feed suppliers and one goes out of business, you will use the other one. However, at this stage, just note the risk as “feed supplier X goes out of business. Loss of feed supply.”

One way to approach risk identification is to:

- Use the list generated in Step 1 ('Establish the context') as a basis to identify what could happen to disrupt your business (e.g. a key supplier, customer or service provider goes out of business, or disease is identified in your herd leading to your property being placed under quarantine).
- Identify any other risks you can think of.
- For each risk identify what could occur and how it will impact your business (e.g. loss of feed supply, loss of income) if you don't take any remedial action.

Step 3: Risk analysis and evaluation (Measuring risks to your business and making decisions about which risks to address)

What are the consequences of these events (i.e. those identified in the 'Risk Identification' step above) in terms of their impact on your business? This step is to determine how much risk each event presents to your business so you know which events you should be most concerned about. For each possible cause you should:

- Determine the consequences e.g. what would happen to your business if the feed supplier went out of business and you had no controls in place? An example of controls is given in Step 4.
- Determine the likelihood e.g. how likely is it that your feed supplier would go out of business?

And identify...

- **Any controls already in place to address the risk.** For example, for the risk of fuel shortage due (say) to a strike, on-site fuel storage could be one control to prevent the business from running out of fuel.
- **How effective these controls are.** Some controls will reduce but not eliminate the risk. For example, implementing a biosecurity plan that includes the quarantining of purchased animals is one control to reduce, but not eliminate, the likelihood of a disease being introduced into your herd, flock or premises.

Your risk analysis should identify which events will have the most impact on your business. The purpose of risk evaluation is to help you make decisions, based on the outcomes of risk analysis, about which risks need treatment and their order of priority. You will typically be looking for risks that are intolerable to your business (i.e. those risks the business could not recover from).

Step 4: Risk treatment (Options for addressing identified risks)

For each risk you propose to treat:

- a) **Identify the possible treatment options available.** You may have a range of treatment options available (e.g. if running out of fuel is a risk identified as intolerable to your business and thus needs treatment, you could increase storage capacity on site).

- b) **Identify the associated benefits, costs and risks** for each treatment option. For example, for the risk of infection of your herd with FMD, improvements to fencing may be a way to manage the potential for contact with diseased stock or wildlife. An associated benefit will be that good fencing also helps improve general livestock management. You should be able to make an approximate estimate of what the benefit would be worth relative to the investment.
- c) **Identify what needs to be done now or in the future** for the chosen treatment option for each risk. For example:
- Now—install new on-site fuel storage or upgrade fencing.
 - Future—keep a checklist in a safe place detailing what to do in the various crisis situations you have considered.

It is important to recognise that disruptive events may occur that have not been considered during this formal risk assessment process. For this reason, it is best if your plans maintain a high degree of flexibility.

Step 5: Implementation, communication and review

A risk management plan developed today will be out of date if key aspects of your business change or your business stakeholders and/or their interests change. It is necessary to review your plan periodically to identify any changes in your business and to confirm that all the controls you identified are still in place.

Section 3: Understanding the Context

This section provides an opportunity for you to record some key information about your business (Section 3.1) and to learn what may occur during an EAD outbreak (Section 3.2)

3.1 TASK 1 Describe your business

Describe your business by completing Table 1 below.

Key information about your business	
Business name	
Owner	
Address	
Region	
Description of business operations	For example: self-replacing cattle/sheep enterprise, dairy and milk contract with processor, saleyard, transporter, meat processor, others
<i>What areas of your business are vulnerable?</i>	
What are your key inputs and who supplies them?	For example: livestock, staff, feed, veterinary supplies, fuel
Key outputs and customers	For example: livestock, meat, wool, milk, hay
Key support services and service providers	For example: agents, consultants, transport, mechanic, vet, accountant, IT support, abattoir.
Key regulators	For example: local council, department of primary industries, environmental protection agency

Table 1 My business context

3.2 What will occur during an EAD outbreak?

EADs can cause serious consequences to industries, communities and people. Figure 2 below provides a list of EADs that may affect cattle, sheep, goats or pigs. Australia is free from all of these diseases except for anthrax and bluetongue disease.

Disease	Cattle	Sheep	Goats	Pigs
African swine fever				✓
Anthrax	✓	✓	✓	✓
Aujeszky's disease	✓	✓	✓	✓
Bluetongue disease in sheep*	✓	✓	✓	
Bovine tuberculosis	✓			
Bovine brucellosis	✓	✓	✓	✓
Classical swine fever				✓
Contagious bovine pleuropneumonia	✓			
Foot-and-mouth disease	✓	✓	✓	✓
Japanese encephalitis				✓
Lumpy skin disease	✓			
Peste des petits ruminants		✓	✓	
Porcine reproductive and respiratory syndrome				✓
Rift Valley fever	✓	✓	✓	
Screw-worm fly	✓	✓	✓	✓
Sheep pox and goat pox		✓	✓	
Surra	✓	✓	✓	
Swine vesicular disease				✓
Transmissible gastroenteritis				✓
Vesicular exanthema				✓
Vesicular stomatitis	✓			✓

Figure 2 Major emergency diseases that may affect animal species. (Source: Adapted from Animal Health Australia, 2011, Wild Animal Response Strategy.)

*Bluetongue disease is mainly a disease of sheep but other species, including cattle and goats, can become infected. Clinical bluetongue disease in sheep is recognised as an EAD in Australia.

FMD is the most significant EAD to the Australian livestock industries and an outbreak would hit suddenly and affect the whole country, even if some areas remained uninfected. Agricultural industries would be seriously affected at all points in the supply chain. For example, in the beef industry, those affected would include breeding enterprises, grazing properties, feedlots, transporters, saleyards and abattoirs. The interdependency of businesses in the beef market chain will thus affect the duration of an EAD's impact.

A chain is only as strong as its weakest link and livestock and livestock product market chains are no exception. It is not until markets are confident the disease has been eradicated that the flow of product out of the chain and the flow of money into the chain can bring life back to affected businesses.

While this manual applies to all EADs, specific information is provided below about the impact an FMD outbreak may have on your business.

3.2.1 International markets will close

If Australia had an FMD outbreak our international trading partners would immediately stop the importation of Australian product. Markets will remain closed until each importing country is completely confident that Australian product no longer poses any risk to their own agriculture. With the closure of markets, the flow of product out of (and money into) your business will reduce or stop. Market closures will affect all farm and associated businesses, regardless of whether their property is infected with the disease, or whether it is close to the outbreak.

A range of movement restrictions will be implemented during an FMD outbreak. Such restrictions help control the disease outbreak and limit the spread of infection to other premises. The restrictions may be in place for days, weeks or even longer, depending on the nature of the outbreak.

3.2.2 Immediate restrictions will be placed on the movement of livestock

A national livestock standstill would be put in place immediately, which would last for at least 72 hours, during which all movement of susceptible livestock (including sheep, cattle, goats, pigs, alpacas, deer, buffalo) must stop.

Restrictions will apply to animals but may also apply to products, vehicles, equipment and other things. While people will still be able to move freely to attend school, work and social events, contact with other people's livestock will be subject to strict controls. These restrictions may disrupt the normal flow of your business and may impact the purchase or sale of stock, feed and supplies.

The restrictions may be widespread (e.g. a national livestock standstill) or more localized, with areas around infected and at-risk premises declared 'restricted' areas. Larger control areas would also be put in place as a buffer between the 'restricted' and outside areas. Individual premises may also be placed in quarantine, particularly if infected, suspected to be infected, or deemed at high risk.

The extent of the movement restrictions—i.e. to which animals, products and areas they apply—will be determined by state and territory government authorities.

The restrictions will be legislated and there will be legal penalties for non-compliance. In some circumstances, the authorities may grant permits for the movement of animals, products or equipment and vehicles. The issue of permits take into account the disease risks associated with the proposed movement and may include conditions about the route and means of transport.

Movement restrictions may impact your business in the following ways:

- Livestock may need to remain on farms, feedlots, piggeries and other premises for an indefinite period while restrictions are in place. Owners will need to ensure the welfare of livestock (by providing, for example, food and water) and, in some cases, humane killing and disposal of animals may be necessary due to (for example) over-crowding or inability to source feed.
- Animals in transit when movement restrictions are declared must be managed as directed by the state or territory government authorities.
- Animals at sale yards, field days and shows when movement restrictions are declared must be managed as directed by the state or territory government authorities.
- People, transport, vehicles, equipment and other things may also be affected by the movement restrictions.
- Manned gate controls may be put in place to limit access onto or off premises.
- Business inputs (such as feed and water) may be affected by the movement restrictions. Government permits and/or cleaning and disinfection of transport vehicles and equipment may be required for entry and exit of affected premises. This may slow transport and delivery times considerably.
- Business outputs (e.g. milk, meat, offal, wool) may be affected by the movement restrictions. Government permits and/or cleaning and disinfection of transport vehicles and equipment may be required on entry and exit of affected premises. This may slow transport times considerably. Products may need to be treated before they can be moved. In some cases, movement of products off affected premises may not be allowed and prolonged storage or disposal on farm may be required.

3.2.3 There will be a backlog of product

Backlogs will occur on your premises as animals and animal products will not be able to be sold, moved or processed. If the backlog includes animals, they will need to be fed, watered and sheltered, or humanely killed and disposed of on your property. If the backlog includes meat and offal, these will need to be frozen or disposed of. Wool may need to be stockpiled on farm, while in some cases dairies may need to dispose of milk on their property. Carcasses or products would need to be disposed of in accordance with AUSVETPLAN guidelines (see references at the end of this booklet) There may also be flow-on effects to the domestic market due to public misperceptions about the safety of animal products during an FMD outbreak.

3.2.4 Businesses arrangements may require re-negotiation

Your business may have in place supply or procurement agreements that become unachievable during an outbreak, thus requiring re-negotiation.

3.2.5 Disease control activities will be implemented by authorities

Depending where you are situated relative to an outbreak, you may be affected by disease control activities essential for eradicating the disease. Activities may include:

- quarantine and movement restrictions on people, animals and materials
- vaccination
- humane killing and disposal of animals and products
- cleaning and disinfection of premises.

Also, depending on which disease control zone you are in, disease control activities will consume a considerable amount of your money, time and resources. Disease control activities may be an impost on your business, however, they are critically important and managers should respect and adhere to directions from government officials. The various disease control activities are described in more detail below.

Biosecurity and surveillance will be enhanced

- You should already have enterprise-level biosecurity plans in place based on your industry biosecurity plans (see references at the end of this booklet), however, some new measures may need to be introduced or existing measures upgraded.
- You have a legal obligation to report suspicions of EADs. This can be done by calling the Emergency Animal Disease Watch Hotline (1800 675 888) or contacting a vet or the nearest department of primary industries or agriculture. Early detection and reporting of disease is essential to minimise the impact of an EAD. Staff should also be made aware of the penalties imposed for not reporting suspicions of an EAD.
- There will be a strict requirement for thorough cleaning and disinfection of people, clothing, vehicles and equipment (some of which will be heavy machinery) moving on and off premises. Large volumes of clean water and disinfectant will be required and will have to be drained away to a safe location.
- Movement restrictions may be placed on people, animals, vehicles and things entering, exiting and moving around the premises.
- Systems for disposal of effluent from feedlots, saleyards and abattoirs may need to be changed if current disposal involves irrigation of pastures used for grazing.
- Stock will need to be inspected in handling facilities, including a crush. Depending on the location of the premises, government-appointed surveillance teams may enter the premises to inspect animals, take samples of blood, tissue and other materials and examine health and production records. Animals will be inspected in pens and some will need to be drafted off for close examination and sampling.
- Inspections will be resource-intensive, time-consuming and disruptive if suitable facilities are unavailable. Trained staff will need to assist if inspections are to be

conducted safely and efficiently. Inspection teams will need to strictly follow biosecurity protocols when entering and leaving your property, including disinfection when entering and leaving the premises.

Animals, people and things will be traced

- Intensive tracing of movements of animals, people, products and materials moving off and onto infected properties will be conducted to define properties at risk and enable appropriate action to be taken.
- A considerable amount of detailed information and documentation (some of it going back many weeks) will need to be provided about the source, routes and destinations of animals, people, waste, fodder, vehicles and equipment to assist with the disease investigation and ensure the disease is controlled as quickly as possible.
- The National Livestock Identification System (NLIS), National Vendor Declarations (NVDs), waybills and post-sale summaries will be used to trace pigs, cattle, sheep and goats.

Large-scale, area-wide vaccination of animals may occur

- Depending on the outbreak situation, authorities may require some animals to be vaccinated to reduce their susceptibility to infection. Animals will have to be appropriately identified as being vaccinated.

Assets may be compulsorily destroyed after valuation, and compensation paid

- Owners of livestock that are culled in a response effort will be paid compensation for the culled animals according to the provisions set out in the *AUSVETPLAN Valuation and Compensation Manual* and the Emergency Animal Disease Response Agreement (EADRA). An electronic copy of the EADRA can be found on the Animal Health Australia website at www.animalhealthaustralia.com.au
- A claim for compensation must be made by, or on behalf of, the owner of animals (or the property that is subject to an incident or the outbreak of an EAD) within ninety days after the date of humane killing or death of the livestock or destruction of other property.
- For livestock, compensation is set at market value of stock on the date of detection or reporting. In the case of property, the value is that applicable immediately before destruction.
- An authorised valuer will visit the premises to inspect and value animals and infrastructure, examine purchasing and sale records and negotiate agreed values.
- Compensation will not be paid for consequential losses (for example, future profits), inadvertent damage to infrastructure and equipment, or to persons not fitting the legal definition of “owner”.
- Valuations and compensation will be audited.
- If the market value of replacement animals is above the compensation value, a top-up payment may be made. See the reference section at the back of this booklet for resources on compensation.

Animals may be destroyed and disposed of

- Animals may need to be humanely killed quickly for reasons of disease control. In an FMD outbreak all susceptible animals on infected farms would be destroyed. Destruction may also be pre-emptive (i.e. healthy animals on at-risk farms may be humanely killed to prevent disease spread) or it may be required for welfare reasons such as overcrowding. Local disease control authorities will provide advice on how this should occur.
- Family members and/or staff can be severely emotionally affected by the disposal activities.

Feral animals may need to be controlled

- The presence of significant feral animal populations may pose a risk to disease spread. They may need to be controlled or eradicated to prevent spread of disease, in a manner preventing harm to native wildlife.
- The AUSVETPLAN Wild Animal Response Strategy provides helpful information about controlling feral animals and includes a list of major emergency diseases that may affect different species on your property.

Infected premises, equipment and vehicles will need to be decontaminated

- Potentially contaminated material such as carcasses or product will require safe disposal. Large volumes of water and disinfectant will be used and will need to be drained away to a safe location.
- The time of completion of decontamination and disinfection will determine when facilities can once again be used to hold stock.

3.2.6 Media and public scrutiny will be intense

Scrutiny will apply to anything and everything to do with the outbreak and how it is managed. There will be significant criticism of anything that does not go to plan, especially anything that negatively affects employees, animal welfare or the environment. The reputations of businesses and industry may be threatened by both fact and fiction.

3.2.7 Export markets will recover in time

Export markets will reopen once trading partner countries are confident in the claims made by the Australian Government that the disease has been eradicated but it may take years for trade volume to recover. If your business manages the disruptions caused by the outbreak (through effective risk management planning) you will be better placed to recover from the outbreak and return to business sooner.

Section 4: Risk identification

Having reviewed the context of an EAD outbreak, including the activities and restrictions that will affect your operations (Section 3), we can now identify and characterise the primary risks for your business. The following five risk categories have been established.

Risk 1: Infection of livestock

What could happen?

In the event of an outbreak, some livestock on properties and premises will become infected and some will not. If livestock become infected, owners will face additional costs and restrictions. However, even if livestock avoid infection or are remote from affected properties, owners may still be affected by movement restrictions and supply chain disruptions. However, humane killing of livestock is less likely to occur, and this would allow the business to recover faster.

What do I need to do to ensure my business survives?

Businesses will need strong biosecurity and disease surveillance to ensure they are best placed to survive an outbreak. See Section 6 for a full list of possible actions you can take to address this risk.

Risk 2: Market closures, loss of income and staff

What could happen?

In the event of an outbreak, revenues will decline, staff may be laid off, business relationships may need to be renegotiated and infrastructure and equipment may fall into disuse.

What do I need to do to ensure my business survives?

To survive, businesses will need to adapt and respond by operating with reduced cash and people, or by pursuing different revenue streams. See Section 6.3 for a full list of possible actions you can take to address this risk.

Hypothetical FMD outbreak

An FMD outbreak occurred near Mount Gambier in South Australia triggering a national livestock standstill and government response plans. The outbreak lasted for 18 months and unfortunately spread to different parts of Australia, affecting all livestock sectors.

Frank's feedlot in Moree, NSW

During the outbreak Australia lost all red-meat export markets. Frank's feedlot near Moree in NSW lost its main source of income and could not afford to maintain staff numbers. Luckily Frank's business was carrying manageable debt levels and had some non-farm assets to draw upon. Frank's wife found some off-farm work which helped meet the household expenses. Frank helped to find short-term employment for his staff until the outbreak was over, after which they were happy to return.

Risk 5: Managing your obligations and responsibilities

What could happen?

It is likely there will be public scrutiny of the outbreak and the response efforts of authorities and livestock managers, especially around any negative impacts on employees, animal welfare or the environment. Businesses found to have acted illegally or inappropriately (e.g. by not reporting suspected disease) could be subject to legal action and will become ineligible for compensation, in addition to suffering significant damage to their reputation.

What do I need to do to ensure business survives?

To survive, businesses will need to understand and adhere to their legal and ethical responsibilities and be prepared to manage difficult and sensitive situations under intense scrutiny. See Section 6 for a full list of possible actions you can take to address this risk.

Hypothetical FMD outbreak

David's Dairy Farm in Maffra, Victoria

During the FMD outbreak David's dairy farm near Maffra in Victoria managed to avoid infection due to strong biosecurity measures and careful management. David had already implemented a biosecurity plan and was careful to regulate and disinfect any people, vehicles or inputs (e.g. equipment) entering his property. David's business suffered greatly during the outbreak through loss of income (milk prices declining significantly) and additional expenses (e.g. disease surveillance, disinfectant). However, by avoiding infection he was able to retain his milking herd, and therefore recovered from the outbreak faster.

Cathy's cattle grazing property near Roma in Queensland

When the National Livestock Standstill was introduced, several hundred of Cathy's heifers were agisted on a neighbouring property. Unsure of her legal responsibilities, Cathy bought her cattle home to her property along the front road where they could be better managed. A few weeks later FMD was detected in the region and scrutiny of landholders increased. Authorities were alerted to Cathy's breach of the livestock standstill and, after conducting an investigation, fined Cathy for not complying with the standstill. Furthermore, Cathy's standing in the community suffered with neighbours accusing her of contributing to the spread of the disease. In hindsight Cathy should have ensured she was better aware of her responsibilities and put the long-term interests of the industry and her community ahead of her own short-term interests.

Trevor's livestock transport business near Alice Springs, Northern Territory

Trevor's six trucks were all loaded and in transit when the outbreak was announced. Trevor promptly contacted his drivers and determined their location. He asked them to pull over while he contacted government authorities for a decision on how to manage the livestock. The government authorities gave Trevor the appropriate permits and Trevor was able to call his drivers back and direct them to permitted unloading points. The authorities appreciated the way Trevor managed his fleet during the standstill and obeyed the rules. Trevor was able to arrange alternative employment for three of his drivers and committed to re-employing them once markets re-opened.

Section 5: Risk analysis and prioritisation (optional)

You now have an understanding of what may happen to disrupt your business during an EAD outbreak (Section 3) and the five main risk categories for your business (Section 4). It is now time to analyse and evaluate your business against these risk categories.

The following five criteria have been developed to help businesses evaluate the opportunities and benefits of taking action in each risk category.

5.1 TASK 2 Complete the Risk Analysis Table

Evaluate your business against each of the five risks using the following three criteria:

- **Likelihood:** The probability that your business will encounter a risk during an EAD outbreak.
- **Consequences:** The potential damage caused by a risk during an EAD outbreak.
- **Opportunity:** An assessment of the opportunities for other benefits to your business (e.g. increasing its resilience to other events such as drought) in addressing a risk.

For each criterion provide a score from 1 (low), 2 (medium) or 3 (high) and record the results in the Risk Analysis table (Table 3, next page).

5.1.1 Example Risk Assessment

A piggery has excellent biosecurity measures in place to avoid infection, with little opportunity for improvement. However, the business is susceptible to market disruptions as it is highly leveraged, operating on tight margins and is very labour intensive. Based on the risk assessment (below), resources are best directed to addressing risk 2 rather than risk 1, as indicated by the total score.

RISK	Score 1 (low), 2 (medium) or 3 (high).			Total Score	Priority rank
	Likelihood	Consequences	Opportunity		
1. Property becomes infected	1	3	1	5	2
2. Business suffers from reduced income and staff	3	3	3	9	1

Table 2 Example Risk Analysis

RISK	Score 1 (low), 2 (medium) or 3 (high).			Total Score	Priority rank
	Likelihood	Consequences	Opportunity		
1. Your livestock or premises becomes infected with the disease.					
2. Markets close and your business loses income and staff.					
3. You are unable to buy, sell or relocate animals, products or feed.					
4. You are unable to fully implement government instructions for disease control on your farm.					
5. You are unable to meet your responsibilities for care of livestock, staff, farm environment and the local community.					

Table 3 Risk Analysis

Section 6: Risk treatment

This section provides a list of potential actions you can take to address each of the five risk categories.

6.1 TASK 3: Identify Actions You Will Take

Having identified and prioritised the risks for your business, choose (by ticking the options below) the actions that you will take to address these risks. (Note: This is not a complete list and you may identify additional actions that could be taken on your property.)

6.2 Risk 1: Infection of livestock

Options for strengthening this area include: (next page)

Before an outbreak

- Bookmark the AUSVETPLAN disease strategy and enterprise manual documents for expert advice on biosecurity and EAD contingency planning. The AUSVETPLAN website provides a whole suite of downloadable disease management materials providing guidance on the management of certain animal diseases and on procedures for valuation and compensation, humane destruction disposal, decontamination, and wild animal control. Consider, in addition, keeping hard copies or saved files of these documents.
- Adopt your industry standards for biosecurity to protect both your herd and your business. Review farm biosecurity (particularly around animal, people, fodder, and vehicle movements and boundary fences) and, if necessary, seek the assistance of a vet or biosecurity expert to develop, implement or upgrade farm biosecurity plans that:
 - ensure thorough cleaning and disinfection of people, clothing, vehicles and equipment at entry and exit points (especially of staff who have contact with animals outside the workplace)
 - place strict limitations on visitors and their contact with animals and the animals' environment
 - quarantine introduced and returning animals on a separate area of the premises.
- Train staff so they understand the farm biosecurity plan, and can follow biosecurity, hygiene and disease recognition protocols. If there is ever any doubt about whether a disease is suspicious, immediately contact your local vet, a government vet or the Emergency Animal Disease Watch hotline number (1800 675 888).
- Establish procedures for staff to report suspicions of disease. Procedures should include what, when and how to report, and the Emergency Animal Disease Watch hotline number should be prominently displayed on the premises.
- Develop staff performance management and other systems that reward good biosecurity practice and make it part of the workplace culture.
- Chart trends of animal health and production data such as rates of morbidity, mortality, medicine usage, feed consumption and growth to promote early detection of disease.
- Assess whether infrastructure and equipment for cleaning and disinfection are adequate and whether you should consider:
 - increasing access to large volumes of clean water and disinfectant for cleaning and disinfection
 - improving facilities for changing clothes, showering, hand-washing, providing clean protective clothing, and retention and laundering of dirty clothing. (For further information to help you make an assessment, consult the AUSVETPLAN manual on decontamination. This manual can be accessed via the Operational Manuals link provided at the end of this document.)

- Assess whether facilities for handling and restraining animals—for close inspection and sampling (to detect disease), vaccination or culling—are adequate to permit efficient processing of stock. Animals must be able to be adequately restrained to avoid injury to the animal and handlers.
- Subscribe to news alerts (e.g. ABC news) for early warning of disease outbreaks.
- If possible, increase access to disease information by upgrading internet access for faster searches and download speeds.
- Install wall maps of the property/premises and surrounding areas.
- Continue to adhere to the ban on feeding swill (meat other than fish or poultry) to pigs as this practice presents a serious risk for the introduction of EADs.
- Make someone responsible for regular review of disease information and changes to industry and AUSVETPLAN manuals relevant to disease control.

During an outbreak

- Develop systems that allow staff to work from home, if practical, in case farm or premises access is prevented or limited.
- Use rosters to avoid staff burn-out of those assisting with response efforts.
- Check the website www.outbreak.gov.au for the latest official information and monitor the location of the outbreak through reports, including those at the outbreak website.
- Talk to your neighbours, local community groups and family for support.

6.3 Risk 2: Market closures and the loss of income and staff

Options for strengthening this area include:

Before an outbreak

- Think about your cash flow and investigate ways of accessing finance if an emergency did arise, including:
 - increasing cash reserves
 - developing alternative enterprises not involving animals or products affected by EAD
 - obtaining part-time work off-farm
 - accessing loans, overdrafts, extensions of credit
 - consider taking out income protection insurance
 - accessing government grants
 - accessing industry grants.

- Strengthen working relationships with your bank or other financial institutions, and accounting and legal firms, including making them aware that you have considered risk management planning processes, including those targeting EADs.
- Review your property's insurance and lease agreements to determine the implications of an EAD outbreak for these and to ensure policies are up to date.
- Through training, develop a multi-skilled, self-reliant workforce able to cope with stress and perform multiple roles in an emergency. For more assistance with training or available courses, contact your industry body, the Livestock Biosecurity Network (02 6269 5623), or view information online at: www.animalhealthaustralia.com.au/programs/training-programs/
- Develop a plan for orderly staff lay-offs and re-employment.
- Review staff contracts. Do the terms allow for additional hours in the case of an emergency? Do clauses restrict your ability to lay-off staff temporarily or in the event of exceptional circumstances?
- Maintain links with your industry and local community as their support will be invaluable during an EAD outbreak. Know your neighbours, customers, suppliers, and suppliers of suppliers so that you can better predict the impact of an outbreak on these business stakeholders, which will in turn affect your business.
- Introduce labour-saving devices and technologies to cope with the additional livestock handling and decontamination requirements imposed by an EAD outbreak.

Before or during an outbreak

- Talk with downstream processors about possible interruption to deliveries and what can be done to cause minimal disruptions to access by trucks/tankers.
- Talk with your suppliers so they understand there could be a delay in payments. If possible, negotiate arrangements for payments during the outbreak.

During an outbreak

- Identify assets (such as equipment) that could be sold to generate cash without posing a biosecurity risk. Develop a plan for the orderly sale of assets aiming to have something left to operate with post-EAD.

6.4 Risk 3: Movement restrictions and feed shortages

Options for strengthening this area include:

Before an outbreak

- Make plans to deal with a backlog of livestock or products (e.g. milk, meat or wool) on the property. Plan for orderly disposal, or isolation and decontamination of animal products on site such as milk or wool bales.
- Consider ways to deal with feed shortages, such as: increasing storage and reserves with extra silos, haysheds, silage; identify options for obtaining feed locally; investigate AUSPIG and FEEDCHEQUE for ways of increasing efficiency of feeding.
- Develop a plan for staying fully informed on movement restrictions during an EAD outbreak.
- Record state and territory government livestock authority contact details so that you can promptly apply for permits to move livestock if a national livestock standstill is declared.
- Preserve valuable genetics by harvesting and freezing semen and/or embryos.
- Provide negotiation training for senior managers so they are better prepared for potentially difficult conversations with suppliers, customers, neighbours and other business stakeholders.

During an outbreak

- Consult your local DPI to obtain advice on the routine movement of product while minimising the spread of disease.
- Ensure there is capacity to stockpile large quantities of manure, effluent and bedding or to dispose of it on your property.
- Consult state authorities for advice on how to manage the essential movements of herds between different sections of the property during a livestock standstill as restrictions may apply.

6.5 Risk 4: Managing disease control activities

Options for strengthening this area include:

Before an outbreak

General

- Bookmark or download AUSVETPLAN manuals on valuation and compensation, humane killing and disposal, wild animal control and decontamination.
- Identify a senior staff member to oversee any actions required by the veterinary team responding to an EAD.

For surveillance, tracing and handling/vaccination

- Plan the provision of biosecurity facilities (e.g. wash-down sites) for surveillance or vaccination teams.
- Ensure facilities for inspecting, handling and vaccinating animals are adequate to permit efficient processing of stock. Animals must be able to be adequately restrained to avoid injury to the animal and handlers.
- Provide staff training in low-stress animal handling.
- Ensure record keeping/information systems permit rapid retrieval and reporting of livestock health, movements and numbers, and include systems for sending data off-site without having to physically leave the property.
- Have efficient livestock identification and traceability systems in place, including on trucks.
- Save the Emergency Animal Disease Watch hotline number in your mobile phone (1800 675 888).

For valuation and compensation

- If practical, install weighing scales.
- Keep good records of purchases and sales.
- Improve financial systems for retrieval of data.
- Take video footage or pictures of the premises, infrastructure, equipment, animals, landscape and other assets to support valuation.

For animal destruction and disposal

- Consider where burial, composting and/or incineration sites could be located on your property.
- Have a control plan for feral and scavenging animals.
- Implement best practice policies for workplace safety. For advice, refer to the transport and slaughter section of the *OHS Reference Guide Australian Meat Industry* (a link is provided at the end of this document) or the workplace safety authority in your state or territory.

For decontamination

- Ensure cleanliness and tidiness of the premises to facilitate rapid decontamination. Check the appropriate AUSVETPLAN Disease Strategy Manual for the appropriate disinfectant/decontamination agent to be used for the EAD outbreak.
- Ensure the layout and design of premises and wash-down sites provide for easy, rapid cleaning with minimal damage to infrastructure.

- Have reserve water storage capacity in place to meet the increased water requirements of decontamination.
- Consider where and how you could decontaminate heavy equipment (e.g. trucks) on your property.

For feral animal control

- Monitor and control feral animal populations.
- Rodent-proof feed storages.

During an outbreak

- Increase the supply/storage of water and disinfectant to the premises.
- Seal transport trucks to prevent leakage of manure or urine if animals are permitted to be transported.
- Manage dead pits to prevent scavenging.

6.6 Risk 5: Managing your obligations and responsibilities

Before an outbreak

- Create a strong culture of best practice for humane killing, carcass disposal and animal handling.
- Ensure staff are aware of, and adhere to, codes of practice for welfare of animals, especially sections relating to humane killing and animal handling. These are available online at www.animalwelfarestandards.net.au/files/2011/02/Land-transport-of-livestock-Standards-and-Guidelines-Version-1.-1-21-September-2012.pdf

During an outbreak

- Ensure staff cooperation with response teams.
- Manage staff stress and ensure workplace safety standards are maintained.
- If practical, make staff available to assist other businesses with disease control activities.
- Participate in community organisations such as the local fire brigade and state emergency services, or service organisations such as Rotary and Red Cross which provide emergency assistance to farmers and others.
- Ensure good working relationships with government animal health, environmental and work safety authorities, as well as Industry Liaison Officers. Have them advise and assist the business to operate within the law.

Section 7: Implementation, communication and review of your plan

Having developed your risk management plan, it is vital that it is implemented, communicated and reviewed over time.

7.1 Implementation

Implementation of your risk management plan can begin immediately after it is developed. Many activities can be undertaken before an outbreak occurs to improve your preparation. Use Section 6 of this document as your to-do list, crossing off activities as they are completed.

7.2 Communication

It is important that you consult with key stakeholders during the development of your plan and it is equally important to communicate the details of the plan after it has been developed, to ensure it is understood by the family and all staff. At a minimum you should discuss with your family and staff what an EAD outbreak will mean for your business, and how you will prepare and respond.

Consultation during plan development

While this document aims to provide much of the information you will need to develop your plan, it is important to consult with other stakeholders and sources of information relevant to your business. This will involve:

- browsing and bookmarking the relevant AUSVETPLAN manuals
- discussion with family members
- discussion with staff
- discussion with other key stakeholders for your business (accountant, bank manager, key customers/suppliers).

Communicating your plan

Once your plan is complete it is important that key stakeholders understand your risk management strategies, or at the very least understand that the plan exists and will be exercised in an EAD event.

In most cases your plan will include prevention/preparation strategies requiring action being taken before an outbreak. Make a checklist of these actions to help ensure they are completed.

Some other ideas for communicating your plan are:

- circulating the plan via email to key stakeholders
- creating a back-up copy (i.e. saving it online, or on a flash drive, or asking someone outside the business to keep a spare hardcopy version on file)
- keeping a print version in your office.

7.3 Review

Review and update your plan as circumstances change. For example, if:

- EAD risks increase (e.g. an FMD outbreak occurs in the Australian region).
- Your farm operations change (e.g. production system, production mix, property size, labour requirements).
- AUSVETPLAN disease strategies change (e.g. response policy around livestock movements or vaccination).

To ensure the plan is reviewed regularly, set a specific review schedule (e.g. every two years).

The **industry brochures** associated with this manual are available online at the websites of the following organisations:

- **grazing enterprises:** Cattle Council of Australia, Wool Producers Australia, Sheepmeat Council of Australia, Federation of Australian Wool Organisations
- **piggeries:** Australian Pork
- **dairy enterprises:** Dairy Australia
- **feedlot enterprises:** Australian Lot Feeders' Association
- **livestock transporters:** Australian Livestock and Rural Transporters Association
- **saleyards:** Australian Livestock & Property Agents Association Limited
- **meat processing enterprises:** Australian Meat Industry Council.

Resources

AUSVETPLAN MANUALS & DOCUMENTS

Operational procedures manual: Valuation and compensation (Version 3.0):
www.animalhealthaustralia.com.au/wp-content/uploads/2011/04/vac11final.pdf

For more information about **compensation**, see Emergency Animal Disease Response Agreement: Frequently Asked Questions: www.animalhealthaustralia.com.au/wp-content/uploads/2011/04/Emergency-Animal-Disease-Response-Agreement-FAQs-rev3-28-Aug-2012.pdf

Operational procedures manual: Disposal: www.animalhealthaustralia.com.au/wp-content/uploads/2011/04/DISP-3_0-22FINAL18Jul07.pdf

OTHER RESOURCES

Australian Animal Welfare Standards and Guidelines 2013, Land Transport of Livestock, page 23: www.animalwelfarestandards.net.au/files/2011/02/Land-transport-of-livestock-Standards-and-Guidelines-Version-1.1-21-September-2012.pdf

AS/NZS 5050:2010 Business continuity—Managing disruption-related risk.

AS/NZS ISO 31000:2009 Risk management—Principles and guidelines.

NASOP: Management of livestock in transit at the time a national standstill is declared for foot-and-mouth disease. (Version 1.2): www.animalhealthaustralia.com.au/wp-content/uploads/2011/04/Management-of-livestock-in-transit-at-the-time-a-national-standstill-is-declared.pdf

Occupational Health and Safety Reference Guide Australian Meat Industry: www.mintrac-whs.com.au/wp-content/uploads/OHS-Reference-Guide-Part4.pdf

INDUSTRY BIOSECURITY RESOURCES

- **Australian Code of Practice for the Selling of Livestock**: www.saleyards.info/public/pdf/Australian%20Code%20of%20Practice%202013%20Nov%202007.doc
- **Australian Pork Industry Biosecurity Program**: www.farmbiosecurity.com.au/wp-content/uploads/2013/01/Australian-Pork-Industry-Biosecurity-Program.pdf
- **Australian Pork Industry Quality Assurance Program Standards Manual**: www.apiq.com.au/images/stories/Manuals/APIQ_Standards_Manual_Version_3.3_3_2013.pdf
- **Australian Pork Industry Quality Assurance Program Small Holder Manual**: www.apiq.com.au/downloads/APIQ%20Small%20Holder%20Manual.pdf
- **AUSVETPLAN Enterprise Manual: Saleyards and transport**: www.animalhealthaustralia.com.au/wp-content/uploads/2011/04/SYT3.0-15-FINAL29Jan13.pdf
- **AUSVETPLAN Enterprise Manual: Meat Processing**: www.animalhealthaustralia.com.au/wp-content/uploads/2011/04/MEAT-3_0-17FINAL7Feb08.pdf
- **Biosecurity Plan: Australian Lot Feeding Industry**: www.farmbiosecurity.com.au/wp-content/uploads/2012/12/Biosecurity-Plan-Australian-Lot-Feeding-Industry.pdf
- **Construction and Equipment Guidelines for Export Meat**: www.daff.gov.au/__data/assets/pdf_file/0007/129283/constructequipexportmeat.pdf
- **Dairy Biosecurity: Healthy Farms**: www.dairyaustralia.com.au/Animals-feed-and-environment/Biosecurity.aspx
- **Enterprise Manual: Beef cattle feedlots** (Version 3.0). http://www.animalhealthaustralia.com.au/wp-content/uploads/2011/04/Feedlot-Manual3_0-10Proof27Apr10.pdf

- **Enterprise Manual Meat Processing:** www.animalhealthaustralia.com.au/wp-content/uploads/2011/04/MEAT-3_0-17FINAL7Feb08.pdf
- **Enterprise Manual for Saleyards and Transport:** www.animalhealthaustralia.com.au/wp-content/uploads/2011/04/SYT3.0-15-FINAL29Jan13.pdf
- **Farm Biosecurity for Livestock Producers:** www.farmbiosecurity.com.au/wp-content/uploads/2013/06/Farm-Biosecurity-for-Livestock-Producers.pdf
- **National Farm Biosecurity Manual for Pork Production:** www.animalhealthaustralia.com.au/wp-content/uploads/2013/08/AHA0238_Pork_Manual_WEB.pdf
- **National Farm Biosecurity Reference Manual: Grazing Livestock Production:** www.farmbiosecurity.com.au/wp-content/uploads/2012/12/National-Farm-Biosecurity-Reference-Manual-Grazing-Livestock-Production.pdf
- **National Biosecurity Manual for Beef Cattle Feedlots:** www.farmbiosecurity.com.au/wp-content/uploads/2013/10/National-Biosecurity-Manual-for-Beef-Cattle-Feedlots.pdf
- **Wool enterprise manual:** www.animalhealthaustralia.com.au/programs/emergency-animal-disease-preparedness/ausvetplan/enterprise-manuals/

