AUSTRALIAN VETERINARY EMERGENCY PLAN

AUSVETPLAN

Enterprise Manual

Saleyards and transport

Version 5.0

AUSVETPLAN is a series of technical response plans that describe the proposed Australian approach to an emergency animal disease incident. The documents provide guidance based on sound analysis, linking policy, strategies, implementation, coordination and emergency-management plans.

National Biosecurity Committee

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ISBN 0 642 24506 1 (printed version)

ISBN 1 876 71438 7 (electronic version)

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Text under development

In this manual, text placed in square brackets [xxx] indicates that that aspect of the manual remains unresolved or is under development; such text is not part of the official manual. The issues will be further worked on by experts and relevant text included at a future date.

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Approved citation

Animal Health Australia (2021). *Enterprise manual*: *Saleyards and transport* (version 5.0). Australian Veterinary Emergency Plan (AUSVETPLAN), edition 5, Canberra, ACT.

DISEASE WATCH HOTLINE: 1800 675 888

The Disease Watch Hotline is a toll-free telephone number that connects callers to the relevant state or territory officer to report concerns about any potential emergency disease situation. Anyone suspecting an emergency disease outbreak should use this number to get immediate advice and assistance.

Publication record

Edition 1
1991

Edition 2
Version 2.0, 1996 (interim document)
Version 2.1, 1999 (final document)

Edition 3
Version 3.0, 2013 (major update and inclusion of new cost-sharing arrangements)

Edition 5
Version 5.0, 2021 (incorporation into the Edition 5 format)

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1 Introduction

1.1 This manual

The species of stock considered in this manual are principally cattle and sheep, with some reference to pigs and goats. The same principles apply to horses and camelids, which are occasionally assembled for sale.

This manual does not cover:

- infrequent sales (eg those held once or twice per year), agricultural shows and field days — however, the underlying principles are similar to those for saleyards
- poultry sales
- ex-saleyards that are used as spelling yards.

Saleyard owners will need to take responsibility for activities occurring on their premises that are not associated with sales.

Transport includes road and rail transport (where applicable) as it relates to the movement of stock to and from saleyards.

1.1.1 Purpose

Enterprise manuals address the risks associated with so-called risk enterprises. These are defined as livestock or related enterprises that are a potential source of major infection for many other premises, and can thus increase the potential size of an outbreak and affect its nature.

1.1.2 Scope

This enterprise manual is aimed at both government officers and saleyard and transport personnel who may be involved in emergency animal disease (EAD) preparedness. For government personnel, including those not familiar with the industry, the manual brings together, from many sources, operational guidelines, plans of action and other resources for dealing with EADs. For industry personnel, including owners or managers, the manual provides guidelines on their responsibilities during an EAD outbreak, as required by the relevant government authorities, and strategies that may be adopted to improve preparedness for, or to handle, a suspected EAD. Managers should include elements of this manual in the operational manuals of their enterprises.

1.1.3 Development

This manual has been produced in accordance with the procedures described in the **AUSVETPLAN *Overview***, and in consultation with Australian national, state and territory governments; the relevant livestock industries; nongovernment agencies; and public health authorities, where relevant.

In this manual, text placed in square brackets [xxx] indicates that that aspect of the manual remains unresolved or is under development; such text is not part of the official manual. The issues will be worked on by experts and relevant text included at a future date.

1.2 Other documentation

This enterprise manual should be read and implemented in conjunction with:

- other AUSVETPLAN documents, including response strategies, operational and management manuals; and any relevant guidance and resource documents. The complete series of manuals is available on the Animal Health Australia website[1]
- relevant nationally agreed standard operating procedures (NASOPs)[2]. These procedures complement AUSVETPLAN and describe in detail specific actions undertaken during a response to an incident. NASOPs have been developed for use by jurisdictions during responses to emergency animal disease (EAD) incidents and emergencies
- relevant jurisdictional or industry policies, response plans, standard operating procedures and work instructions
- relevant Commonwealth and jurisdictional legislation and legal agreements (such as the Emergency Animal Disease Response Agreement – EADRA[3], where applicable.

1.3 Training resources

EAD preparedness and response arrangements in Australia

The EAD Foundation Online course[4] provides livestock producers, veterinarians, veterinary students, government personnel and emergency workers with foundation knowledge for further training in EAD preparedness and response in Australia.

[1] www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents
[2] www.animalhealthaustralia.com.au/what-we-do/emergency-animal-disease/nationally-agreed-standard-operating-procedures
[3] www.animalhealthaustralia.com.au/what-we-do/emergency-animal-disease/ead-response-agreement
[4] www.animalhealthaustralia.com.au/emergency-animal-disease-training-program

2 The Australian Industry

The occurrence of an emergency animal disease (EAD) in a saleyard could have a devastating impact because of the possibility of rapid dissemination of the disease to many properties over a wide area. This section describes the operation of saleyards, including relevant legislation and codes; the major EADs of concern to saleyards; and factors relevant to entry of disease to, and spread of disease from, saleyards. The main livestock species considered in this document are cattle, sheep, goats and pigs. Feed enters the saleyard primarily in the form of hay.

Saleyards are defined as public or privately owned venues where livestock are assembled for sale and purchase. Types of sales include:

- fat sales — where stock are primarily intended for sale for direct slaughter
- store sales — where stock are primarily intended for purchase by other livestock owners for growing out, fattening or breeding
- stud sales — where stock are primarily intended for purchase as breeders; the value of animals often exceeds normal commercial values
- bobby calf sales (and assembly points for bobby calves).

Pre-export quarantine (PEQ) for live animal exports is a risk enterprise, where large numbers of stock are quarantined in preparation for transport to the importing country. PEQ operational standards are documented in the *Australian Standards for the Export of Livestock*[5].

Most saleyards are operated by boards or private operators and are managed by a saleyard manager. The manager, through the board and by-laws or contracts, has authority for all activities within the saleyard, including control of agents. Agents are typically responsible for providing the labour to pen and move stock. Personnel in the yard are usually employed by the agent, rather than the saleyard operator.

Major saleyards are usually locked to prevent the unauthorised entry of stock. When stock are delivered, they are checked in, counted and documented on delivery dockets. Processes are in place to ensure that the identity and integrity of each lot is maintained.

National Livestock Identification System (NLIS) tags for cattle are scanned on arrival, providing an electronic record of the identity and source of all cattle on the premises. This record is held by the saleyard manager.

In large saleyards, National Vendor Declarations will also be scanned into the saleyard manager's computer database. Original copies are held by the livestock agent.

When livestock are purchased, the buyer authorises their movement from the saleyard by working with the saleyard operator to generate a consignment note or waybill. This document will usually be necessary before saleyard security staff permit release of the stock. All records of waybills are kept by both the buyer and the saleyard operator as a 'buyer's instruction sheet', which could be used to quickly identify recent movements of stock from the saleyard. The NLIS database will also identify the destination of stock if the details have been entered into the database within the prescribed time.

[5] www.agriculture.gov.au/export/controlled-goods/live-animals/livestock/australian-standards-livestock

2.1 Industry organisations

Saleyard operators usually belong to the Australian Livestock Markets Association. The website of this industry organisation[6] lists all member saleyards in Australia, including owner contact details.

Most livestock agents belong to the Australian Livestock and Property Agents Association[7], which can be contacted if information is required from a member.

2.2 Industry regulations, standards and programs

The Australian Livestock Markets Association (ALMA) promotes a voluntary code of practice for the operation of saleyards — *The Australian Code of Practice for the Selling of Livestock* (23 November 2007)[8], and the Australian Model Code of Practice for Livestock Saleyards and Lairages (2015)[9]. The codes cover structural and operational requirements and is a useful reference for staff responding to an EAD on the elements of saleyard operation. It is recommended that operators develop EAD response plans and shows an example of a plan.

2.3 Legislation relevant to the industry

Legislation for the control of EADs has been enacted at both the national and the state/territory levels. The national legislation is primarily concerned with preventing the introduction and establishment of disease or of things that may carry disease. State and territory legislation aims to control and eradicate disease in animals, and establishes controls over animal movement, treatment, decontamination, slaughter and compensation. Broad powers are conferred on government veterinarians and gazetted inspectors of stock, including the power to enter premises, order stock musters, test animals, and order the destruction of animals and products that are suspected of being infected or contaminated.

State and territory EAD legislation is listed in the AUSVETPLAN **Summary Document**. Types of legislation relevant to control of EADs in a saleyard are listed in Table 2.1.

Table 2.1 Indicative legislation with implications for the control of EADs in a saleyard

Legislation[a]	**Influence**
Stock diseases Acts and regulations	• Provide powers for government veterinarians or gazetted inspectors of stock to enter premises to quarantine and destroy diseased animals • Provide for compensation • Establish the rights of owners

[6] www.australiansaleyards.com.au
[7] www.alpa.net.au/
[8] http://casinosaleyards.com.au/wp-content/uploads/2018/04/Code-of-Practice-for-Selling-Livestock.pdf
[9] This code is available to members of ALMA.

Legislation[a]	Influence
Exotic disease Acts and regulations	• Provide powers for government veterinarians or gazetted inspectors of stock to detect disease; control infected premises and areas; control and trace movements of animals, people, vehicles and animal products; quarantine and destroy infected animals and products • Provide for compensation • Provide for rights of owners
Animal welfare Acts and regulations	• Require provision of food, water, shelter • Require care of sick, weak or injured animals
Environmental protection Acts and regulations	• Provide for protection of environment (e.g. odour, burial, groundwater)
Transport of livestock Acts and regulations	• Relate to times travelled, loading densities

a Specific titles of Acts and regulations vary between the states and territories.

2.4 Animal welfare

Retention of stock in a saleyard may precipitate welfare problems, such as difficulties with feeding of bobby calves, or disposing of effluent in large saleyards.

In the event of an EAD outbreak, most impacts of general codes relating to saleyard management — for example, cleaning and maintenance requirements — will be positive. However, if stock are assembled for a prolonged time before sale, this might increase the risk of spread of disease if sales continue during the outbreak.

The saleyard industry has recently established a voluntary National Saleyards Quality Assurance Program, which is being implemented by individual saleyard operators. Accreditation with this program is a commitment by saleyards to meet and maintain recognised national standards for the handling of livestock through all stages of the prime market and store/re-stocker market. The program addresses issues relating to construction, siting and drainage of facilities; security; animal welfare and husbandry of animals; attention to sick and dead stock; reporting and recording of animal movements; and meat quality and residues.

The Australian Livestock Transporters Association has introduced a voluntary, independently audited quality assurance program, known as TruckCare, for the livestock transport industry. It documents policies and procedures, based on model codes of practice, to be followed for matters such as livestock handling and inspection of stock at loading, in transit and during unloading.

Maintenance of high animal welfare standards will be essential during an EAD response, consistent with relevant legislation, codes, standards and guidelines, and the Australian Animal Welfare Strategy (see below).

The AUSVETPLAN operational procedures manual **Livestock Welfare and Management** is relevant to the response plans described in this manual.

Levels of animal welfare requirements

Under constitutional arrangements, legislative responsibility for animal welfare rests primarily with state and territory governments, which have their own acts and regulations. The Australian Government has responsibility for trade and international agreements, and its legislation covers the welfare of animals exported live or processed at export abattoirs.

Local governments have responsibility for some areas of animal control (e.g. animals at large) and public health that can have a significant impact on animal welfare. This includes providing feedback to state and territory governments to change legislation, and promotion and maintenance of responsible animal ownership.

During an EAD response, any action taken on welfare grounds alone must comply with the provisions of the animal welfare legislation in the relevant jurisdiction. The animal welfare officer and animal welfare coordinator should have copies of the appropriate legislation readily available for reference.

Animal welfare requirements at the state/territory level

State and territory legislation relating to animal welfare is listed below.

Australian Capital Territory

- *Animal Welfare Act 1992*

New South Wales

- *Prevention of Cruelty to Animals Act 1979*

Northern Territory

- *Animal Welfare Act 1999*

Queensland

- *Animal Care and Protection Act 2001*[10]

South Australia

- *Prevention of Cruelty to Animals Act 1985*

Victoria

- *Prevention of Cruelty to Animals Act 1986*

[10] This Act is under review in 2021.

Tasmania

- *Animal Welfare Act 1993*

Western Australia

- *Animal Welfare Act 2002*

The Australian Animal Welfare Strategy

The Australian Animal Welfare Strategy (AAWS) was developed by the National Consultative Committee on Animal Welfare and approved by the Primary Industries Ministerial Council in May 2004. The AAWS is available on the website of the Australian Government Department of Agriculture, Water and the Environment[11].

The AAWS has been developed to outline directions for future improvements in the welfare of animals, and to provide national and international communities with an appreciation of animal welfare arrangements in Australia. Work is now under way to update the model codes of practice and convert them into Australian animal welfare standards and guidelines, for endorsement by the Standing Council on Primary Industries (formerly the Primary Industries Ministerial Council). The new documents will incorporate both national welfare standards and industry guidelines.

The standards and guidelines provide the basis for developing and implementing consistent legislation and enforcement across Australia, and direction for all responsible for livestock welfare. They reflect available scientific knowledge, current practice and community expectations. The standards and guidelines may be reflected in industry-based quality-assurance programs.

[11] www.agriculture.gov.au/animal/welfare/aaws

3 Emergency animal diseases and the industry

3.1 Risk of disease spread from the enterprise

There is considerable opportunity for disease to spread within and from saleyards. Saleyards are high-risk enterprises, because infected livestock passing through them can rapidly disseminate the disease to a large number of properties over a wide geographical area. This risk affects both current and future sales, as many disease agents persist for a considerable time in the environment.

Live animals, people, vehicles, vectors, wind, fomites and effluent are all potential means of spread. The relative importance of these means of spread depends on the nature of the disease involved, the source of infection, the number of animals affected, and the degree of contamination of saleyards, vehicles, people and items. Given the potentially very large number of opportunities for disease spread, it is vital that the degree of risk for each animal, person or item is assessed and control activities are prioritised.

The main infectious outputs from saleyards will be livestock and their excretions (including manure and urine), and contaminated livestock transports, people, clothing and boots. **The main means of spread will be direct contact between infected and susceptible stock in the saleyard, and the movement of stock incubating the disease but not yet showing any clinical signs of illness.** Other means of spread include indirect contact between infective and susceptible animals via:

- transports carrying infected livestock
- people who have had contact with infected stock
- contaminated equipment
- other vehicles, people, effluent and, for some diseases, insects
- windborne spread, under some circumstances.

The challenge when confronted with a suspected disease outbreak will be to prioritise investigation and control activities, particularly as initial information and resources are likely to be limited. The three basic tools of disease control are:

- quarantine (movement control)
- destruction and disposal of affected or at-risk stock
- disinfection of contaminated areas and things.

Although these tools can be applied very successfully with little knowledge of the particular disease of concern, more effective and targeted strategies can be used if there is knowledge of where the disease came from, how it spreads and where it may have spread to.

3.1.1 Factors to consider in assessing risk of disease spread

Live animals

Livestock movements will, in most cases, be the most important means of spread. Store sales, which involve movement of stock to many other properties, present greater potential risks than fat sales, from which most livestock go to an abattoir for slaughter.

People

People may spread some diseases. The risk depends on the person's degree of exposure to the disease, the disease agent and the likelihood of the disease being passed on, which relates to the time interval to the person's next animal contact and their degree of contact with the next animal.

People can be divided into risk categories:

- close contact, high risk — agents, livestock handlers, livestock carriers, veterinarians, owners of infected stock
- moderate contact, moderate risk — farmers (other than owners of infected stock), stock buyers
- low contact, low risk — general public, canteen staff.

Vehicles

Vehicles can also spread some diseases. The risk depends on the degree of exposure of the vehicle to the disease, the disease agent and the likelihood of the disease being passed on, which relates to the time interval to the vehicle's next animal contact and the degree of contact with the next animal.

Vehicles may be divided into risk categories:

- close contact, high risk — vehicles that transported stock from the infected premises
- moderate contact, moderate risk
- vehicles that transported stock (but not from the infected premises)
- farm vehicles, such as utilities that carry stockfeed and/or are driven into paddocks or stockyards
- stock agents' and yard workers' vehicles
- low contact, low risk — vehicles used by the general public and canteen staff.

Waste

Effluent from saleyards and truck-washing facilities may contain infectious material. However, since the material is likely to be greatly diluted, the risk of disease transmission is low unless susceptible species come into direct contact with the effluent, or aerosols are produced during its production or disposal.

Windborne spread

Windborne (aerosol) spread from saleyards can be a considerable risk, especially for foot-and-mouth disease (FMD) under conditions involving cool, gentle breezes and high humidity. Aerosol spread may be more important in spreading disease within the saleyard complex. The proximity of susceptible stock to saleyards will be an important factor in risk assessment.

Other factors

In assessing the risk of spread, other factors to consider include:

- the area that stock and people have been assembled from and will disperse to
- the prevailing weather conditions
- the potential contact time between infected and other stock (i.e. the time that infected and other stock are held in the same yards, or yards in close proximity)
- the degree of direct and indirect contact between infectious and susceptible animals in common ramps, laneways, scales and yards.

If a disease agent persists and is present in a product or on an item, infection will not necessarily result when a susceptible animal comes into contact with that product or item. In general, contact with a considerable number of virus particles is required to initiate infection in susceptible animals; the number of virus particles required is strongly influenced by the route of infection.

Risk of spread of specific diseases

Table 3.1 summarises information relevant to the risk of spread of the diseases relevant to saleyards by various mechanisms. This information can be used in conjunction with Figure 3.1 and Table 3.2 to prioritise activities.

Table 3.1 Mechanisms of spread of major emergency animal diseases

Disease	Species	Insect vector	Level of importance of means of disease spread for disease control				
			Live animal contact	**Aerosol**	**Fomites**	**Personnel**	**Effluent**
African swine fever	Pig	Tick	High	High (short distance)	High	High	High
Aujeszky's disease	Pig Cattle Sheep Goat Dog Cat	None	High Low Low Low Low Low	High (short distance) High (short distance) High (short distance) High (short distance) High (short distance) High (short distance)	Moderate Moderate Moderate Moderate Moderate Moderate	Moderate Moderate Moderate Moderate Moderate Moderate	Moderate Moderate Moderate Moderate Moderate Moderate
Bluetongue	Sheep Goat Cattle Buffalo Deer	*Culicoides*	Zero Zero Zero Zero Zero	Zero Zero Zero Zero Zero	Zero Zero Zero Zero Zero	Zero Zero Zero Zero Zero	Zero Zero Zero Zero Zero
Bovine spongiform encephalopathy	Cattle	None	Zero	Zero	Zero	Zero	Zero

Disease	Species	Insect vector	Level of importance of means of disease spread for disease control				
Classical swine fever	Pig	None	High	High (short distance)	High	High	High
Foot-and-mouth disease	Pig Cattle Sheep Goat Buffalo Deer	None	High High High High High High	High (possibly over long distances) High (possibly over long distances) High (possibly over long distances) High (possibly over long distances) High (possibly over long distances) High (possibly over long distances)	High High High High High High	High High High High High High	Moderate Moderate Moderate Moderate Moderate Moderate
Japanese encephalitis	Horse Pig	Mosquitoes	Zero Zero	Zero Zero	Zero Zero	Zero Zero	Zero Zero
Lumpy skin disease	Cattle	Biting flies, mosquitoes	Moderate	Zero	Low	Low	Low
Peste des petits ruminants	Sheep Goat	None	High High	High (short distance) High (short distance)	Low Low	Low Low	Low Low
Rabies	Mammals	None	High	Low	Zero	Zero	Zero
Rift Valley fever	Sheep Goat Cattle	Mosquitoes	Low Low Low	Low Low Low	Low Low Low	Low Low Low	Low Low Low

Disease	Species	Insect vector	Level of importance of means of disease spread for disease control				
	Buffalo Camel Human		Low Low Low	Low Low High	Low Low Low	Low Low Low	Low Low Low
Scrapie	Sheep Goat	None	Moderate Moderate	Low Low	Zero Zero	Low Low	Zero Zero
Screw-worm fly	Mammals	None	High	Zero	Zero	Zero	Zero
Sheep pox and goat pox	Sheep Goat	Flies, mosquitoes, *Culicoides* (mechanical)	High High	High (short distance) High (short distance)	High High	Moderate Moderate	Moderate Moderate
Swine vesicular disease	Pig	None	High	Low	Moderate	Moderate	High
Transmissible gastroenteritis	Pig	None	High	High (in young pigs)	Moderate	Moderate	Low
Vesicular exanthema	Pig	None	High	Low	Moderate	Low	High
Vesicular stomatitis	Cattle Horse Pig	Biting flies Mosquitoes *Culicoides*	Moderate Moderate Moderate	Zero Zero Zero	Low Low Low	Low Low Low	Low Low Low

Foot-and-mouth disease

Figure 3.1 shows possible contacts and means of spread for FMD in a saleyard. A similar diagram would be needed to evaluate the risks for other diseases.

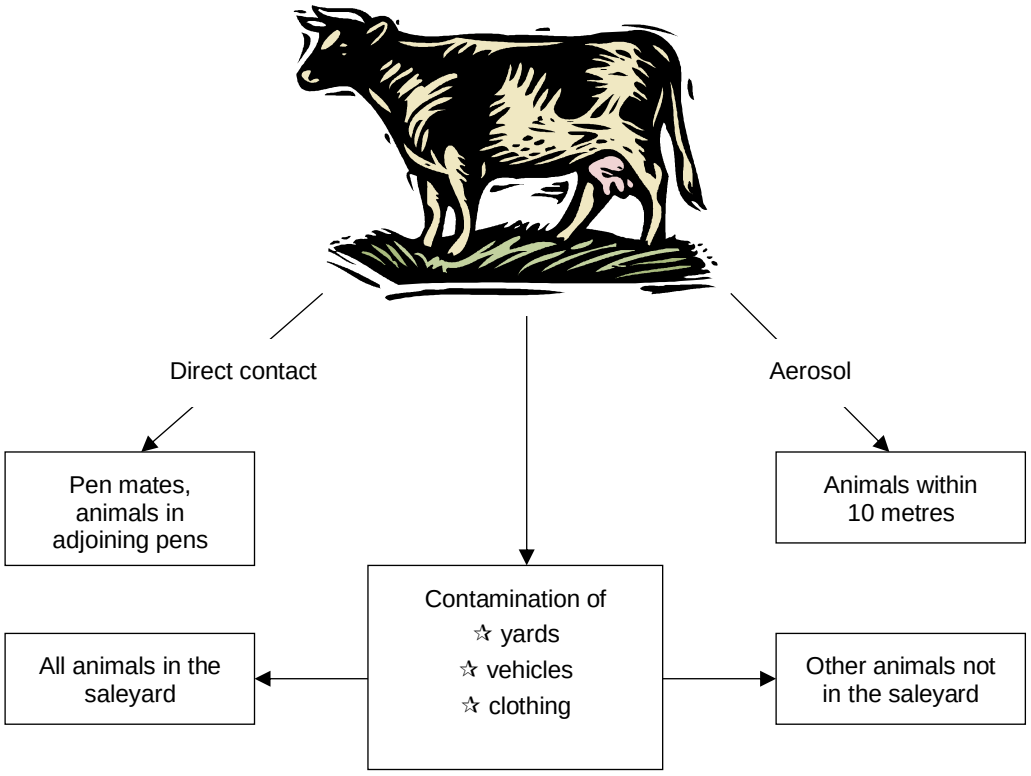

Figure 3.1 Possible contacts and means of spread of foot-and-mouth disease from an infected animal in a saleyard

Table 3.2 provides a guide to how long FMD virus can persist under a range of conditions, and which livestock products and wastes have the greatest chance of carrying infection for prolonged periods. It does not provide information on the probability of infection following contact with various secretions.

Table 3.2 Survival of FMD virus in secretions, excretions and products

Secretion, excretion or product	Survival time under optimal conditions (days)
Faeces	
• In hay	200
• Dry in pens	14
Blood	
• On gumboots	100
• Dry on bricks/wool	2-3
saliva	140
Urine	30-40
Milk	7

Secretion, excretion or product	Survival time under optimal conditions (days)
Mucus from upper respiratory tract (humans)	1
Secretion, excretion or product	Survival time under optimal conditions (days)
Faeces • in hay • dry in pens Blood • on gumboots • dry on bricks/wood Saliva Urine Milk Mucus from upper respiratory tract (humans)	 200 14 100 2–3 140 30–40 7 1

Source: Morgan (1993)

3.2 Work health and safety

Most EADs only affect animals, but a few can infect humans, with varying consequences. Table 3.3 lists these diseases, their effect on people and the implications for handling a disease outbreak in a saleyard.

Table 3.3 Emergency animal diseases that affect humans

Disease	Effect on humans	Influence on handling disease in a saleyard
Anthrax	Cutaneous, respiratory or gastrointestinal effects	Avoid inhaling or ingesting spores and avoid exposure to cut or abraded skin; use personal hygiene
Brucellosis	Fever, sweating, weakness, anaemia, headaches, depression, muscular and bodily pain	Avoid inhaling or ingesting dust; avoid contact with cut or abraded skin; use personal hygiene
Japanese encephalitis	Can cause encephalitis	Use insect protection (mosquito-borne disease, mainly in pigs and horses)
Rabies	Death	Treat all suspect cases with great care to avoid being bitten or allowing infective saliva to come into contact with eyes, cuts or abrasions
Rift Valley fever	Influenza-like disease, with occasionally more serious complications, including death	Avoid exposure to blood and discharges

Disease	Effect on humans	Influence on handling disease in a saleyard
Screw-worm fly	Myiasis	Monitor, especially in northern Australian saleyards, and promptly treat wounds
Sheep pox and goat pox	Skin lesions (only isolated incidents — people are generally considered resistant)	Use personal hygiene
Vesicular stomatitis	Influenza-like disease	Use personal hygiene

4 Emergency animal disease preparedness and management

4.1 Australia's animal health services

Australian governments, primary industries and other stakeholders work closely together to prevent, detect, control and manage pest and disease outbreaks, and minimise impacts on the economy, environment and international trade. To do this effectively, governments, industries and stakeholders use consistent and collaborative approaches to determine national animal health priorities. The livestock industries are active partners in policy development, support targeted animal health activities and contribute to emergency responses.

4.2 National arrangements

Governance arrangements for the response to EADs are outlined in the **AUSVETPLAN *Overview***.

Information on the responsibilities of a state coordination centre and local control centre is available in the **AUEVTPLAN management manual *Control centres management* (Parts 1 and 2)**.

Australia's response planning and coordination are enhanced by collaborative national arrangements between governments and industry, and other key stakeholders. These arrangements include:

- the *Government and livestock industry cost sharing deed in respect of emergency animal disease responses* (Emergency Animal Disease Response Agreement [EADRA])
- the Australian Veterinary Emergency Plan (AUSVETPLAN)
- training for EAD response personnel.

Coordination of the response to EAD incidents is further enhanced by the use of established consultative committees and management groups.

4.2.1 Emergency Animal Disease Response Agreement

The EADRA[12] is a legally binding agreement between the Australian Government, state and territory governments, livestock industries and Animal Health Australia (AHA). It supports a rapid and efficient response to an EAD outbreak.

The agreement establishes basic operating principles and guidelines, and defines roles and responsibilities of the parties that are involved. It provides for formal consultation and dispute resolution between government and industry on resource allocation, funding, training, risk management and ongoing biosecurity arrangements.

The signatories of the EADRA are committed to:

- minimising the risk of EAD incidents by developing and implementing biosecurity plans for their jurisdictions or industries

[12] The full title of the agreement is the Government and Livestock Industry Cost Sharing Deed in Respect of Emergency Animal Disease Responses. For more information, see www.animalhealthaustralia.com.au/programs/emergency-animal-disease-preparedness/ead-response-agreement/ .

- maintaining capacity to respond to an EAD by having adequate numbers of trained personnel available to fill the response functions specified in AUSVETPLAN
- participating in decision-making relating to EAD responses, through representation on the Consultative Committee on Emergency Animal Diseases (CCEAD) and the National EAD Management Group (NMG) established for the incident
- sharing the eligible response costs of EAD incursions using pre-agreed cost-sharing formulas.

Four categories of diseases are used to determine the liability for costs. These categories have been developed according to the benefits of controlling the disease, as assessed by the likely impact of the specific EAD on human health, socioeconomics, the environment and livestock production.

Table 4.1 describes the four disease categories and their respective cost-sharing arrangement.

Table 4.1 Disease categories and cost-sharing arrangements

Category	Cost-sharing arrangement
1	100% government
2	80% government 20% industry
3	50% government 50% industry
4	20% government 80% industry

The EADRA also contains many other important instructions that provide the basis for a coordinated national EAD response. In particular, it refers to using existing plans, such as AUSVETPLAN; sets standards for accounting, auditing and training personnel; and, provides the incentive for developing and maintaining government and industry biosecurity measures.

4.2.2 AUSVETPLAN

This enterprise manual is part of AUSVETPLAN – Australia's Veterinary Emergency Plan.

AUSVETPLAN is Australia's nationally agreed approach to responding to emergency animal diseases (EADs) of national significance. It comprises resources that support efficient, effective and coherent response to these diseases. It has been developed and agreed on by governments and relevant industries in non-outbreak times to ensure that a fast, efficient and effective EAD response can be implemented consistently across Australia with minimal delay.

AUSVETPLAN provides the contingency planning framework for Australia's response to EADs and is complemented by a range of other plans and resources, including:

- national and state/territory standard operating procedures for the implementation of certain response measures
- plans involving other areas of state and territory emergency management arrangements (eg police, local government)
- diagnostic resources
- training materials.

4.2.3 Training for emergency animal disease response personnel

It is a requirement of the EADRA that, where possible, signatories (governments and industries) use appropriately trained staff to undertake the response functions outlined in AUSVETPLAN for an EAD response.

Governments provide training in response functions for their personnel.

Animal Health Australia's Training Services project provides training for government personnel and representatives of the Australian livestock industries to help prepare them to participate in the CCEAD and NMG. The program also provides training for livestock industries representatives to prepare them to undertake the Liaison – Livestock Industry function in either a state coordination centre (SCC) or Local Control Centre (LCC).

The responsibilities of the SCC and LCC Liaison – Livestock Industry functions are documented in the **Control Centres Management Manual Part 2**[13].

4.3 Controlling an emergency animal disease incident

4.3.1 Governance

Control of an EAD outbreak is a complex operation, requiring rapid mobilisation of resources and coordination of a diverse team of people. An EAD response may require input from all tiers of government and from a range of portfolios, as it may need to address not only animal health issues, but also financial, social, economic, human, trade and recovery issues.

EAD responses are planned and implemented at three levels — national, state or territory, and local.

The Australian Government (through the Department of Agriculture, Water and the Environment) provides international liaison during an EAD response; this includes market access negotiations, international reporting (eg to the World Organisation for Animal Health [OIE]), and coordinating access to overseas assistance through existing agreements. The Australian Government also provides national coordination for the response; more information is provided in the **Control Centres Management Manual Part 1**.

The CCEAD is the key technical coordinating body providing the link between the Australian Government, states and territories, industry, AHA and the NMG during an EAD response.

The NMG manages national policy and resourcing of the response. It determines whether a disease is eradicable and whether the direct costs of a response should be shared between Australia's governments and the relevant livestock industry/ies under the EADRA.

Both the CCEAD and the NMG base their recommendations and decisions on current information provided by the affected state or territory, and on guidance provided in AUSVETPLAN.

In an EAD outbreak, relevant state or territory animal health officials manage all aspects of its control and eradication according to a nationally agreed plan (Emergency Animal Disease Response Plan, EADRP).

The chief veterinary officer (CVO) of the state or territory in which an EAD outbreak occurs implements disease control measures as agreed in the EADRP and in accordance with relevant

[13] www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents/

legislation. State/territory animal health (or in many cases, biosecurity) legislation provides broad powers to enable an effective response to EADs, including the ability to enter premises, examine records, order livestock musters, control livestock movements, request that animals or products be submitted for testing, and isolate and destroy diseased or suspected diseased livestock.

An SCC may be established to coordinate response activities across the state or territory, in accordance with the strategic direction provided by the CVO, the CCEAD and the NMG. The SCC maintains overall control of the incident under the CVO and is able to give specific directions to the LCCs to ensure that the CVO's intentions are met.

Disease-control activities are managed from an LCC, usually established in the vicinity of the outbreak. The LCC is responsible for all operational activities within a defined area, assigned by the CVO, including investigations of reports of disease outbreaks, consultation with livestock producers and processors, specimen collection, property quarantine, valuation of livestock and property, livestock slaughter, livestock product tracing, treatment and disposal; and property decontamination.

Information on the structure, functions and responsibilities of the SCCs and LCCs is contained in the **Control Centres Management Manual, Part 1**. Detailed descriptions of functions and associated activities in an EAD response are contained in **Control Centres Management Manual, Part 2**.

The CVO makes ongoing decisions on follow-up disease control measures in consultation with the CCEAD and, where applicable, the NMG, based on epidemiological information about the outbreak.

4.3.2 Response measures

The response to an EAD will be determined by the nature of the outbreak, including:

- how early the outbreak is detected
- the extent of the outbreak
- the location of infected, suspected, trace and dangerous contact premises
- which species of livestock are affected
- the characteristics of the disease agent involved.

The fundamental aim of national EAD control policy is to eradicate an EAD if this is reasonably feasible. Key factors taken into account are those related to the disease and affected population. For example, the principal option used for many EADs is eradication by stamping out where this is applicable to the EAD in question and is considered to be cost-effective. This may involve use of all or some of the following procedures:

- epidemiological assessment (to understand how the disease is behaving in that particular outbreak)
- quarantine of premises and/or movement controls on potentially infected or contaminated live animals, animal products, people, equipment, vehicles and other things
    - this will include a national livestock standstill if foot-and-mouth disease (FMD) is strongly suspected or confirmed; see the **FMD disease strategy** for more information
- tracing of potentially infected animals and potentially contaminated products and things (e.g. equipment, vehicles etc.)
- surveillance of susceptible animals
- biosecurity measures for people and equipment
- managing animal welfare

- valuation and compensation for livestock and property (including milk and milk products) destroyed as part of the EAD response
- destruction and disposal of infected and exposed susceptible animals, animal products and contaminated materials
- decontamination of infected premises
- restriction of the activities of certain enterprises
- an industry and public information program.

Other measures that may be used where necessary include:

- vaccination
- vector or wild animal control
- treatment of affected animals
- treatment of affected products
- use of sentinel animals
- zoning and compartmentalisation.

In some circumstances, a modified stamping-out approach may be used, for example by allowing the slaughter of animals at an accredited abattoir to produce a marketable product.

Sometimes, eradication is not considered feasible because the outbreak is already widespread when diagnosed or is considered likely to spread further despite the application of stamping out. In these cases, other control measures may be selected, such as vaccination, with a view to possible containment and eventual eradication; or a state or territory and/or industry-based control program to manage a disease that is likely to become endemic in the population. Where the NMG has reason to believe that eradication is not possible and the disease can only be contained, or in any situation where the cost of an EAD response plan will exceed an agreed limit on funding, the NMG may decide to stop cost sharing.

4.3.3 Overview of declared areas and premises classifications

Declared areas

'A defined tract of land that is subjected to disease control restrictions under emergency animal disease legislation. There are two types of declared areas: restricted area and control area.'

Declared areas are areas declared under jurisdictional legislation. They include restricted areas (RAs), which are subject to strict disease control measures, and control areas (CAs), which are disease-free buffers between an RA and the parts of Australia that are free of disease (the outside area – OA).

There are two types of legally declared area: restricted area and control area.

All declared areas need to be clearly identified and easily understood, so that all affected parties can recognise which area they are in, and what regulations and control measures are applicable to them.

Declared areas are declared by a chief veterinary officer (CVO) or their delegate, or a ministerial declaration, according to the appropriate legislation of the states and territories involved.

There are also other areas that are not legally declared, but are used for specific reasons:

- transmission areas, which are used for vector-borne diseases for epidemiological purposes, recognising that vectors are not confined by property boundaries
- the outside area is used to describe the rest of Australia outside the declared areas.

Area definitions for non-vector-borne diseases

Restricted area (RA)

'A relatively small legally declared area around infected premises and dangerous contact premises that is subject to disease controls, including intense surveillance and movement controls.'

A restricted area (RA) will be a relatively small declared area[14] (compared with a control area — see below) drawn with at least 'x' km radius[15] around all IPs and DCPs, and including as many SPs, TPs and DCPFs as practicable. Based on risk assessment, the RA is subject to intense surveillance and movement controls, and other relevant disease controls. The purpose of the RA is to minimise the spread of the EAD. The RA does not need to be circular but can have an irregular perimeter, provided that the boundary is initially an appropriate distance from the nearest IP, DCP, DCPF, SP or TP. Multiple RAs may exist within one control area.

The boundaries will be modified as new information becomes available, including from an official surveillance program. The actual distance in any one direction will be determined by factors such as terrain, the pattern of livestock movements, livestock concentrations, the weather (including prevailing winds), the distribution and movements of relevant wild (including feral) animals, and known characteristics of the disease agent. In practice, major geographic features and landmarks, such as rivers, mountains, highways and roads, are frequently used to demarcate the boundaries of the RA. Although it would be convenient to declare the RA on the basis of local government areas, this may not be practical, as such areas can be larger than the particular circumstances require.

Control area (CA)

'A legally declared area where the disease controls, including surveillance and movement controls, applied are of lesser intensity than those in a restricted area (the limits of a control area and the conditions applying to it can be varied during an incident according to need).'

A control area (CA) is a disease-free buffer between the RA and the outside area (see below). Specific movement controls, surveillance strategies, and other relevant disease controls will be applied within the CA to maintain its disease-free status and prevent spread of the disease into the outside area.

An additional purpose of the CA is to control movement of susceptible livestock for as long as is necessary to complete tracing and epidemiological studies, to identify risk factors and forward and backward risk(s).

The CA will be a larger declared area around the RA(s) — initially, possibly as large as the state or territory in which the incident occurs — where restrictions will reduce the risk of disease spreading from the RA(s). The CA will have a minimum radius of 'y' kilometres[16], encompassing the RA(s). The actual distance in any one direction will be determined by factors such as terrain, the pattern of livestock movements, livestock concentrations, the weather (including prevailing winds), the distribution and movements of relevant wild (including feral) animals, and known characteristics of the disease agent. In practice, major geographic features and landmarks, such as rivers, mountains, highways and roads, are frequently used to demarcate the boundaries of the CA. The boundary will be adjusted as confidence about the extent and distribution of the incident increases.

[14] As defined under relevant jurisdictional legislation.
[15] For specific details, refer to the relevant AUSVETPLAN response/disease strategy, www.animalhealthaustralia.com.au/programs/emergency-animal-disease-preparedness/ausvetplan
[16] For specific details, refer to the relevant AUSVETPLAN response/disease strategy, www.animalhealthaustralia.com.au/programs/emergency-animal-disease-preparedness/ausvetplan

In general, surveillance and movement controls will be less intense in the CA than in the RA, and disease-susceptible animals and their products may be more likely to be permitted to move under permit within and from the area than those originating from the RA.

Outside area (OA)

'The area of Australia outside the declared (control and restricted) areas.'

The outside area (OA) is **not** a declared area but is used to describe the rest of Australia outside the declared areas. The OA will be subject to surveillance. Because it is highly desirable to maintain the OA as 'disease free', the movement of animals and commodities from the RA and CA into the OA will be restricted.

The OA will also be of interest for 'zoning'[17] and 'compartmentalisation'[18] for purposes of trade access, as well as for disease control (see below).

Area definitions for vector-borne diseases

Transmission area (TA)

'An area, *not* legally declared, that is used for vector-borne[19] diseases for epidemiological purposes, recognising that vectors are not confined by property boundaries. It includes IPs and, where possible, SPs, TPs, DCPs and DCPFs. A transmission area is subject to an increased level of surveillance, and has movement controls appropriate to its associated restricted area.'

Vector-borne diseases differ from non-vector-borne infectious diseases in that vectors cannot be contained by boundary fences. The transmission area (TA) is thus less concerned with property boundaries or definitions and more with including all infected vectors in the area surrounding known areas of transmission. It will be drawn around known sources of transmission, as evidenced by disease, seroconversion, trapping of infected vectors and any other confirmation of active disease transmission. There may be insufficient information at the start of a response to identify a TA, and an RA may be put in place before a TA can be determined.

A TA is not a legally declared area but will include all IPs and, where possible, all SPs, TPs, DCPs and DCPFs. In the presence of competent vectors, a TA of 'x' km[20] radius should be drawn. The TA does not need to be circular but can have an irregular perimeter, provided that the boundary is initially an appropriate distance from the nearest IP, DCP, DCPF, SP or TP. This distance will depend on the information gained about vector numbers and competence, environmental factors (e.g. prevailing winds, rainfall, temperature, humidity), and the number and distribution of infected and/or susceptible animals. In the absence of competent vectors, the TA may be reduced in size.

Restricted area (RA)

An RA will be a larger legally declared area around the TA. The boundary of the RA does not have to be circular or parallel to that of the TA but should be at least 'y' km from the boundary of the TA; this distance may be influenced by OIE standards or an official control program. The RA can include areas of known competent vector distribution. In general, surveillance may be less intense than in the TA, but movement controls will be the same.

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[17] The process of defining, implementing and maintaining disease-free and infected areas, in accordance with OIE standards. Zoning is based on geopolitical and/or physical boundaries and surveillance, in order to facilitate disease control and/or trade.

[18] The process of defining, implementing and maintaining one or more disease-free establishments, under a common biosecurity management system, in accordance with OIE standards. Compartmentalisation is based on applied biosecurity measures and surveillance, in order to facilitate disease control and/or trade.

[19] In most cases, a TA is focused on insect (arthropod) vectors.

[20] For specific details, refer to the relevant AUSVETPLAN response/disease strategy, www.animalhealthaustralia.com.au/programs/emergency-animal-disease-preparedness/ausvetplan

The boundary of the RA will be adjusted as confidence about the extent of the incident increases. It will take into account the relevant OIE *Terrestrial Animal Health Code* chapter on the disease and, if appropriate, OIE standards on zoning and compartmentalisation (Chapter 4.3[21]).

Other types of areas

It is possible that other types of areas (e.g. vaccination area or surveillance area), which are not legally declared, may be used for disease control purposes in some jurisdictions.

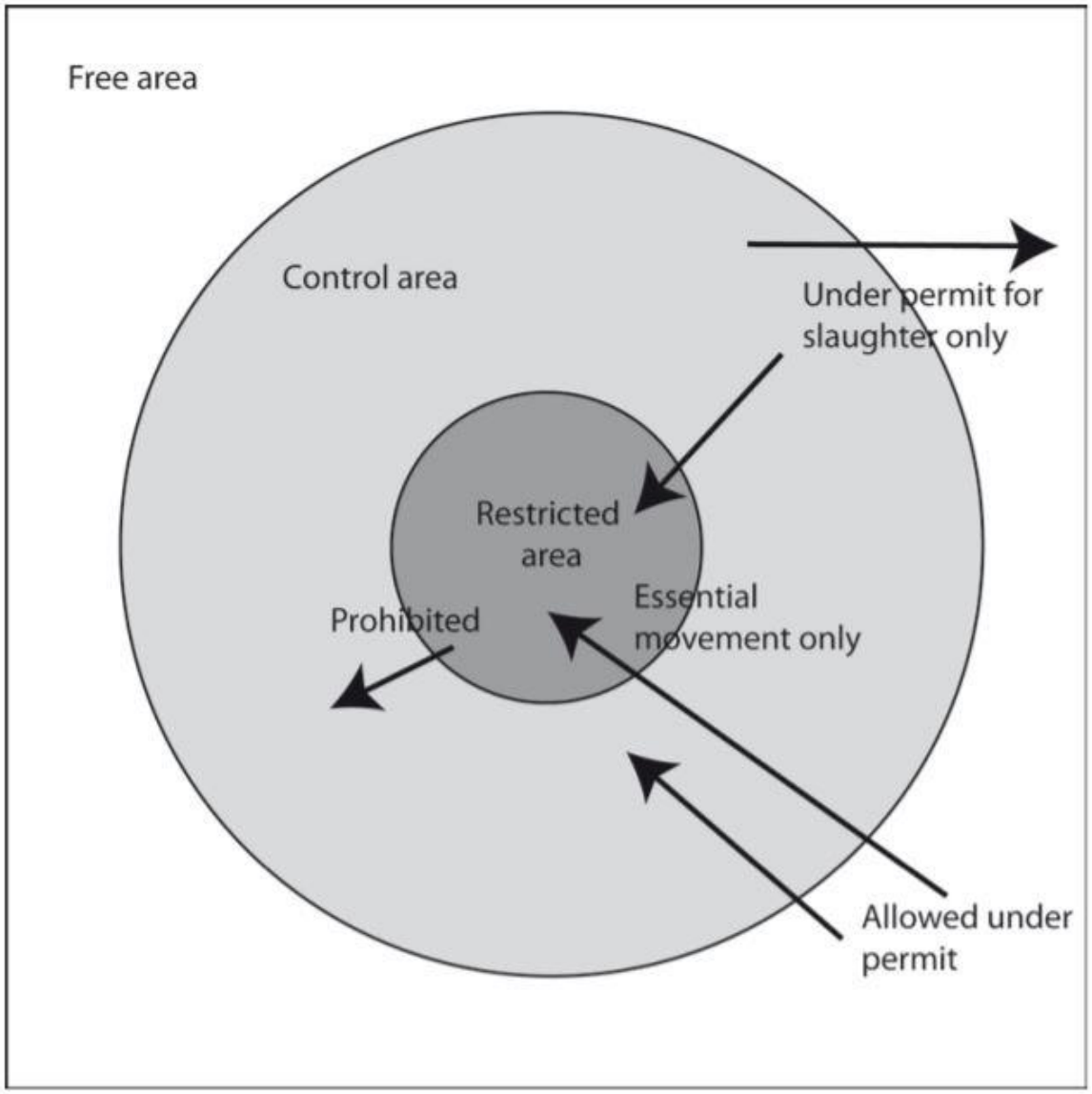

Figure 4.1 Schematic illustration of declared areas indicating standard movement controls

[21] www.oie.int/international-standard-setting/terrestrial-code/access-online

Premises classifications

All premises within declared areas are subject to classification for disease control management and monitoring purposes.

A particular property (or premises) must fit clearly into only one premises classification at a given time. The classifications and their abbreviations are (in alphabetical order):

- Approved disposal site (ADS)
- Approved processing facility (APF)
- At-risk premises (ARP)
- Dangerous contact premises (DCP)
- Dangerous contact processing facility (DCPF)
- Infected premises (IP)
- Premises of relevance (POR)
- Resolved premises (RP)
- Suspect premises (SP)
- Trace premises (TP)
- Unknown status premises (UP)
- Zero susceptible species premises (ZP).

In addition to these premises definitions, the following 'qualifiers' may be used to describe the outcome of a recent investigation, epidemiological risk assessment or other activity on premises where their status has not changed:

- Assessed negative (AN)
- Vaccinated (VN)
- Sentinels on site (SN).

For example, an ARP that has been determined by the relevant jurisdictional authority as being 'assessed negative' should be recorded as 'ARP-AN', and an IP that has had a completed vaccination program should be recorded as 'IP-VN'[22].

Not all classifications may be needed in a particular EAD response.

Classification of premises provides a framework for authorities to exercise legal powers over such premises, facilitates product tracking, and serves as a communication tool for reporting nationally and internationally on progress in the response.

[22] Some jurisdictions might have a date associated with the 'assessed negative' qualifier.

4.3.4 Use of declared areas and premises classifications in an EAD incident

When an EAD incident is first suspected, the premises involved would undergo a clinical and/or epidemiological investigation. If the case definition, as defined in the relevant AUSVETPLAN response strategy, is met[23] (i.e. the index case[24]), the relevant CVO or their delegate will determine the premises classification and may declare the premises an IP.

After the identification of the first IP, an RA and a CA may be declared[25]. A transmission area (TA) may also be defined, if appropriate. All premises within these areas will be classified. At the beginning of an EAD incident, the initial premises classifications would be infected premises (IP), at-risk premises (ARP), premises of relevance (POR), unknown status premises (UP) and zero susceptible species premises (ZP).

Any premises within the RA or CA will have only one classification at any one time. After an epidemiological investigation, clinical assessment, risk assessment or completion of control measures, a premises may be reclassified.

Once the first IP has been identified, intelligence gathering through veterinary epidemiological investigations would quickly lead to the identification of SPs and TPs. These would be high priorities for follow-up investigation by the relevant state or territory authorities. In a worst-case scenario, an SP could become an IP; therefore, SPs need to be investigated as a matter of very high priority. Similarly, investigation and risk assessment of a TP might identify it as an IP, DCP or DCPF. Both an SP and a TP might also be assessed as negative and qualified as SP-AN and TP-AN, and eventually reclassified as an ARP, POR or ZP.

All premises classifications are subject to change as a result of a modification in the case definition(s) or investigation(s) as the incident response proceeds.

Classifications should be applied with information needs of managers in mind. They should assist managers to monitor and report progress. Premises classifications to be used should be agreed early in a response, so that control centre personnel can apply the correct and consistent classifications and definitions from the outset of the investigation and response.

[23] Note that case definitions are under development for some manuals and also that some diseases could be present without showing clinical signs.
[24] The first case to come to the attention of investigators.
[25] This is invariably the case with highly contagious diseases (e.g. foot-and-mouth disease, equine/avian/swine influenza, classical swine fever) but may not apply to less contagious diseases (e.g. Hendra virus, anthrax, Australian bat lyssavirus).

5 Industry preparedness

Contingency planning is necessary for exotic emergency animal diseases (EADs). It also has spin-off benefits in reducing losses from unexpected endemic diseases. Each saleyard should make plans that may be useful in the event of a disease emergency.

5.1 Biosecurity measures and the industry

5.1.1 Personnel

Responsibilities of saleyard and government personnel before an EAD incident

Saleyard ownership and management

- Develop and/or adhere to codes of practice that address reducing the risk and impact of a serious disease, including descriptions of:
    - saleyard location, saleyard construction, cleaning and maintenance, effluent disposal
    - frequency of sales, and use of premises for transit stock and other purposes
    - access for livestock vehicles and other vehicles
    - human access to saleyards and general ability to secure premises, if necessary.
- Maintain accurate recording systems that enable rapid tracing of ownership and stock movements.
- Seek veterinary advice on sick and dead stock and on ensuring that the system for carcass disposal does not risk spreading disease.
- Prepare and maintain a map of saleyards and surrounds, indicating entry/exit points for livestock people and drainage systems.

Livestock agents and transport operators

- Be aware of:
    - the likely presenting signs for EADs
    - likely impacts of an EAD incident on the operation of the business
    - who to contact in the event of an EAD incident
    - the powers of the lead authorities, including for quarantine of livestock and vehicles, and the value of cooperation
    - the principles of movement control
    - the concepts of RAs and CAs and their specific impact
    - the importance of public perceptions about risk
    - the likelihood that any contact with IPs, DCPs or SPs will prevent subsequent contact with susceptible species for up to 7 days.
- Ensure that vehicle and personal hygiene are in good order to minimise the risk of spreading disease.
- Maintain good records of stock movements and sales, and be prepared to make them available at short notice.

Department of agriculture

- Maintain industry contact, including regular attendance at saleyards. The benefits of maintaining contact include the ability to:
    - network to keep abreast of industry practices
    - maintain and increase credibility with key industry people whose cooperation is essential in an EAD incident
    - maintain and increase industry awareness of potential EADs and likely responses.
- Participate in the development of codes of practice for the operation of saleyards to encourage adoption of precautions to reduce risk, such as:
    - construction and maintenance of facilities in an easily cleaned condition
    - regular cleaning of saleyards and surrounds
    - ensuring that effluent disposal presents no risk of spread of disease (endemic or exotic)
    - accurate record keeping in a form that allows rapid access to vital information, such as stock ownership and movements.
- Maintain contact with the state/territory environment protection authority and related authorities to ensure that effluent disposal solutions do not present disease transmission risks.
- Prepare draft role statements for key personnel, in consultation with saleyard management and livestock agents, and test them in training exercises.
- Prepare draft information leaflets for distribution in the event of an EAD incident in a saleyard.
- Maintain awareness of evolving policies, especially zoning and vaccination (in the case of FMD), and of the major mechanisms of spread for various diseases.

5.1.2 Work procedures, staff hygiene and biosecurity

All people who are involved in an EAD response in saleyards should be aware that some EADs can be transmitted from animals to humans.

The most significant EADs for human health are anthrax (cattle, sheep), brucellosis (cattle, goats), Rift Valley fever, rabies (most stock), Japanese encephalitis (pigs), swine vesicular disease (pigs) and vesicular stomatitis (cattle, horses, pigs).

The most significant EADs with regard to the potential for humans to spread the disease are FMD (cattle, sheep, goats) and swine influenza (pigs).

Saleyard managers should liaise with their state or territory government veterinary staff to ensure that a range of personal protective equipment and disinfectants is available for use if required, and include in their plans procedures to maintain stores of these items.

5.1.3 Internal quarantine

Internal quarantine facilities should be planned in advance and maintained, in accordance with the perceived risks. Opportunities for physical division of different areas of the saleyard, as well as separation of livestock handlers, feed trucks and other potential sources of infection, should be considered.

The main purpose of an internal quarantine area will be to isolate sick animals or groups containing them. Within the quarantine area, unnecessary mixing of animal groups should be avoided. Internal quarantine areas should:

- have no direct contact with other animals, equipment or vehicles
- if possible, allow sick animals to be separated by 50–200 metres from other livestock
- not be exposed to effluent or run-off from other parts of the premises
- not expose other parts of the saleyard to effluent or run-off from the internal quarantine area
- have facilities arranged so that sick animals can be handled and fed last
- be handled by dedicated staff, or have staff undertake a decontamination procedure before handling other stock.

5.1.4 Animal health

Veterinary services to the saleyard should be planned with a view to EAD preparedness. If a regular veterinarian is employed, they should be familiar with all relevant aspects of animal handling and saleyard management practices so that more informed decisions can be made if an EAD is suspected.

The veterinarian should be involved in basic training of saleyard staff in what to do (and what not to do) to minimise the spread of disease, including the correct techniques and precautions for collecting, packaging and dispatching specimens to prevent their contamination. Personnel dealing with livestock must be specially targeted for training and observant for any unusual disease signs.

Further information on training materials, including videos and slides, can be found in the **Summary Document**.

5.1.5 Collection and dispatch of laboratory specimens

Proper techniques and precautions should be used for collecting, packaging and dispatching specimens to prevent their contamination. Where specimens are taken by non-veterinary staff, proper procedures should be the subject of training by the saleyard veterinarian. The requirements for collection and transport of laboratory specimens are covered in each AUSVETPLAN **Response strategy**, and further information is available in the **Laboratory Preparedness Manual**.

5.1.6 Disposal methods

A single site should be selected for disposal of carcasses, although it may be necessary to prepare a new site from time to time. The disposal site should be determined in accordance with the requirements of local government and environmental protection agencies and guidelines. It should be secured to prevent disease spread.

Contingency plans should exist for the disposal of large numbers of animals and possibly the entire saleyard population. This will require knowledge of the soil type and profile, and the characteristics of the watertable in the immediate vicinity of the saleyard.

The dimensions of burial sites will depend on the species, age, size and production status (e.g. full wool or shorn) of the animals.

Refer to the **Disposal Manual** for specific details of disposal methods.

5.1.7 Record keeping

Proper routine recording of the movements (in and out) of animals (especially in the National Livestock Identification System database), feed ingredients, equipment and so on could be invaluable during the investigation of an EAD incident. The availability of adequate records of inputs and outputs may enable an earlier return to normal operations than would otherwise be possible. Such records should include:

- the source or destination of the animal or item
- the nature of the item
- the use to which the item will be put
- other relevant details.

Records should be designed so that they can be easily and quickly searched for relevant information.

To aid in risk assessment and the subsequent decision-making process, a map or plan of the saleyard should also be available to animal health authorities.

5.1.8 Water supply

If decontamination of vehicles and equipment is necessary, extra water may be required (see the **Decontamination Manual**). A supply of water adequate only for normal operations of the saleyard is not sufficient. The supply must be capable of providing significantly more than normal requirements.

5.2 Media and public relations

The **Public Relations Manual** contains detailed information on media and public relations activities in the event of an EAD incident, when a saleyard will inevitably be the target of intense media interest. Communication with the media should address only activities that directly affect the saleyard and transport vehicles. General inquiries about the particular disease or the control activities that are being undertaken in the area must be directed to the Public Relations Unit in the local control centre (see the **Public Relations Manual**). See Appendix 3 for further information.

6 Transport

The occurrence of a serious emergency animal disease (EAD) affecting sheep, cattle or pigs would have a significant impact on the livestock transport industry. The nature of the impact will depend on the disease involved, the regions in which the disease is detected and the ability to quickly implement zoning of the affected area. Livestock transport operations in the restricted area (RA) will be severely curtailed, as all but essential livestock movements will be prohibited until the outbreak is brought under control. Stock movements in the surrounding control area (CA) will be less disrupted; however, a range of precautions will still be implemented to minimise the risk of spread of disease.

Outlined below are the principles that form the basis of precautions and restrictions applying to the transport of livestock in the event of a disease emergency.

Nature of the disease

Diseases such as foot-and-mouth disease (FMD) are spread mainly by the movement of livestock and the exposure of susceptible animals to infected animals or contaminated things. Other diseases, such as bluetongue, are transmitted by insect vectors, although livestock movements might be responsible for spreading the disease over long distances.

Information on each disease and the significance of saleyards and transport in its spread is provided in Section 3. Table 3.1 provides additional information on the risk of spread of each disease, and Table 3.2 provides information on the persistence of FMD under a range of conditions. Figure 3.1 provides additional information on how FMD can spread.

Declaration of infected, dangerous contact and suspect premises, and restricted and control areas

Premises and area declarations depend on the degree of risk of infection. Infected premises (IPs), where disease is confirmed or suspected, will be subject to severe restrictions. Movement controls will be imposed in RAs to reduce the risk of disease spread from premises in high-risk areas where disease has not yet been detected. The CA will generally be a low-risk area, with some controls, in case the disease has spread wider than first suspected. Because the controls in RAs could be quite severe, the RA will be made as small as possible (without compromising disease eradication efforts), to minimise impacts on the livestock industry and general community.

This approach will rely heavily on the cooperation of many people, including livestock transporters. It is possible that there will be several RAs surrounding IPs, with each RA (or group of RAs) surrounded by a CA, which could initially involve the whole state or territory. Area boundaries will be continually modified in the light of new knowledge; areas will initially be large when least is known about the disease, and progressively reduced as the situation is clarified.

Animal movements

A general principle that will be applied is that animals may not move from an area of low health status (high risk) to an area of higher health status (low risk). On the other hand, animals may be allowed to move from an area of higher health status to an area of lower health status, provided that the movement is essential and does not result in more susceptible animals being exposed to infection. Restrictions will depend on the disease involved. The following general movements and restrictions may apply in an EAD event, but information on movements and permits will be made available by animal health authorities during the response:

- animals may be transported to an abattoir for immediate slaughter

- saleyards will not be allowed to operate in an RA
- limited farm-to-farm movement may be allowed if movements are shown to be essential and the stock can be held in quarantine on the new property for at least 14 days (the generally accepted maximum incubation period for FMD)
- in a CA, stock movements from farm to farm, farm to saleyard, and farm to abattoir may be permitted under specified conditions
- livestock transporters should contact local government veterinarians or gazetted inspectors of stock, or the local disease control centre to check on the relevant restrictions before picking up livestock; in most cases, a movement permit system will apply.

Hygiene

Maintaining excellent personal hygiene and clean transports will be extremely important during an EAD incident. This will help minimise the risk of spread of disease by contaminated footwear, clothing and vehicles and, equally importantly, assure livestock owners and the general public that transporters are doing all within their power to minimise the risk of spread of disease. Dogs and dog pens on transports may require special consideration.

Records

Good records detailing property visits, livestock pick-ups and deliveries will be required to enable rapid tracing of movements in the case of suspicion of disease. Databases for the National Livestock Identification System (NLIS) and documents such as National Vendor Declarations or Animal Health Statements should be used to assist with tracing and epidemiological investigation.

Cooperation

The cooperation of livestock transporters will be essential to effective eradication of the disease, while minimising problems. In particular, early reporting of suspected disease, good record keeping and making all relevant information available to animal health staff will be very helpful. **Livestock transporters should not hesitate to contact local animal health authorities with relevant information and for advice.**

Recognition of disease and early reporting

Livestock transporters may well be the first people to see an EAD. Therefore, drivers should be trained to recognise the clinical signs of the major EADs and should report any abnormal signs to local animal health staff. **Livestock transporters should not hesitate to report a suspect disease.**

Action when disease is suspected

The main actions for a transport operator to follow if an EAD is suspected are as follows:

- Contact a government veterinarian immediately — use the Emergency Animal Disease Watch Hotline (telephone **1800 675 888**), if appropriate.
- Do not remove any livestock or livestock product from the premises, and discourage others from doing so; anyone who does not comply might be committing an offence.
- Keep animals that are suspected of being infected separate from others.
- If you must leave the premises, disinfect yourself, your equipment and your vehicle; leave any potentially contaminated materials on the premises or transport them in sealed plastic bags.
- Do not enter a property with other susceptible livestock until you have discussed the situation with a government veterinarian.
- Minimise risk of further spread of disease (e.g. ensure that you have no contact with other susceptible stock).

Appendix 1

DISEASES OF CONCERN FOR THE SALEYARD AND TRANSPORT INDUSTRY

This manual uses foot-and-mouth disease (FMD) as an example scenario, but the principles from this scenario apply to all EADs, adjusting for the epidemiology, economic impact and public health aspect of a particular disease. Diseases that primarily affect cattle, sheep, goats and pigs are described briefly below. For more information on these diseases, see the relevant **Response strategy**.

African swine fever

African swine fever is a highly contagious, generalised viral disease of pigs, with no other mammalian hosts. It is transmitted by direct contact, inanimate objects and ticks. The virus is very resistant to inactivation. The acute form of the disease is characterised by pronounced haemorrhage of internal organs and a mortality of up to 100% in infected herds. Milder forms of the disease also occur.

Anthrax

Anthrax is an acute, infectious bacterial disease that can affect humans and a wide range of domestic and wild animals. Ruminants tend to be the most susceptible; however, all mammals are susceptible to some degree. The clinical forms of anthrax in animals are traditionally described as:

- peracute (very acute), in which death occurs suddenly (within a few hours, at most, of the onset of clinical signs)
- acute, in which death occurs from 24 hours to a few days after onset
- subacute or localised, which lasts for several days and may end in recovery.

In cattle, sheep and goats, the disease is usually peracute; in pigs, it is localised.

Aujeszky's disease

Also known as pseudorabies, Aujeszky's disease is caused by a herpesvirus that infects the nervous system and other organs such as the respiratory tract in almost all mammals except humans and the tailless apes. It is primarily associated with swine, which may remain latently infected (i.e. with the virus lying dormant [latent] within cells of the pigs) following clinical recovery.

Bluetongue

Bluetongue is a viral disease of ruminants that is transmitted by specific species of biting midges (*Culicoides* spp.). Sheep are the most severely infected species of livestock. The disease is characterised by inflammation of the mucous membranes, widespread haemorrhages and oedema. Ten serotypes of the virus, some pathogenic to sheep, have been detected in northern and eastern Australia.

Bovine spongiform encephalopathy

Bovine spongiform encephalopathy (BSE) is a fatal neurological disease of adult cattle, characterised by a long incubation period, followed by progressive degeneration. Typical signs are abnormal posture, development of violent behaviour, heightened sensory perception, decreased milk production, weight loss (despite a good appetite) and death.

The disease was first recognised in the United Kingdom in 1986, and probably arose because changed practices in processing meatmeal permitted transmission of the scrapie agent to cattle.

Animals showing neurological signs are to be identified to property of origin, clinically examined and subjected to postmortem examination, and the brain is to be collected for laboratory examination. Detailed special procedures for brain collection should be followed. Animals suspected of having BSE should be destroyed and not used for human or animal consumption.

Brucellosis

Bovine brucellosis is a chronic infectious disease of cattle caused by the bacterium *Brucella abortus*, an intracellular parasite. It results in abortion, stillbirth, infertility and reduced milk production. The disease was effectively eradicated in Australia by 1989. Other *Brucella* species[26] infect pigs, sheep, goats, dogs, marine mammals and rodents. Humans are susceptible.

Classical swine fever (hog cholera)

Classical swine fever is a highly contagious disease that is capable of spreading rapidly in susceptible pig populations. In the acute form, the disease is characterised by fever, severe depression, multiple haemorrhages and rapid death. Less virulent strains of the virus cause subacute and chronic forms of the disease, which include complications of pneumonia and diarrhoea. Typically, the disease is clinically indistinguishable from African swine fever.

Foot-and-mouth disease

FMD is an acute, highly contagious viral infection of domestic and wild cloven-hoofed animals. The presentation and severity of clinical signs vary between species; they include fever, poor appetite, lameness, salivation, and vesicles in, or on, the mouth, nose, feet and teats. Serious production losses can occur, but deaths are unlikely except among young animals.

Japanese encephalitis

Japanese encephalitis is a mosquito-borne viral disease of humans and animals. It occurs throughout much of Asia, sometimes causing encephalitis in humans. Adult pigs normally show no clinical signs, but pregnant sows may abort or produce mummified foetuses, or stillborn or weak piglets. In horses, the clinical signs vary from a mild transient fever to high fever, blindness, collapse, and death in 5–40% of affected animals.

The virus does not persist outside infected animals and mosquitoes, and is not a problem for the production of pigmeat (including game pigmeat).

Lumpy skin disease

Lumpy skin disease is an acute, generalised viral skin disease of cattle. It is highly infectious and is characterised by fever, ocular and nasal discharges, the eruption of cutaneous nodules, swelling of superficial lymph nodes, and oedema of the limbs. It is caused by a strain of the same virus (*Capripoxvirus*) that causes sheep pox and goat pox.

Peste des petits ruminants

Peste des petits ruminants in sheep and goats resembles rinderpest of cattle and is caused by a virus closely related to the virus that causes rinderpest. It is characterised by fever, enteritis, high morbidity and high mortality.

[26] Refer to the latest Animal Health in Australia report for more information. www.animalhealthaustralia.com.au/our-publications/animal-health-in-australia-report/

Rabies

Rabies is an almost invariably fatal viral encephalitis that affects all mammals. It is transmitted principally by the bite of a rabid animal, and has a long and variable incubation period. The main reservoir hosts include members of the Canidae (dogs, foxes).

If the presence of a rabid animal is suspected, human safety is paramount. Extreme care must be taken in dealing with suspect animals. Animals exhibiting any of the signs of rabies should not be handled, and muzzling of suspect carnivores should not be attempted.

Rift Valley fever

Rift Valley fever is a mosquito-borne viral disease of cattle, sheep, goats and humans, characterised by high rates of abortion and high mortality rates in young animals. Since severe disease can occur in humans, special safety precautions are required when handling infected animals.

Scrapie

Scrapie is a transmissible spongiform encephalopathy that occurs in sheep and goats. It is primarily transmitted from ewe (or doe) to offspring, either before or shortly after birth, as a result of close contact between dam and offspring, probably via contaminated uterine fluids. Spread between lambs can occur, especially when lambing is in confined areas. Scrapie has a long incubation period (1–3 years or longer). Clinical signs of pruritus and incoordination progress to depression, recumbency and death. Animals that never develop clinical signs can still be a source of infection to others.

Screw-worm fly

Myiasis caused by larvae of the screw-worm fly is characterised by larvae feeding on living tissues in open wounds of any warm-blooded animal host, resulting in debility and some deaths. The flies prefer warm, moist conditions and a temperature range of 16–30 °C.

Sheep pox and goat pox

Sheep pox and goat pox are highly contagious skin diseases of small ruminants, characterised by fever, excess salivation, nasal and eye discharges, and pustules on exposed body surfaces. There is often a high mortality rate. The virus is very resistant to inactivation in the environment. Its degree of host specificity varies.

Swine vesicular disease

Swine vesicular disease is caused by an enterovirus that is closely related to the human coxsackievirus B5. The disease is characterised by fever and lameness, as a result of vesicles and erosions on the feet. It is clinically indistinguishable from FMD.

Transmissible gastroenteritis

Transmissible gastroenteritis is an enteric viral disease of pigs, caused by a coronavirus. It results in rapid dehydration, profuse diarrhoea and rapid death in piglets under 3 weeks of age.

Vesicular exanthema

Vesicular exanthema is an acute viral disease of pigs characterised by vesicles on the snout, in the mouth and on the feet. The clinical disease is indistinguishable from FMD. The vesicular exanthema virus is very closely related to viruses isolated from marine animals, and an outbreak in pigs was associated with the feeding of contaminated food scraps containing marine animal product.

Vesicular stomatitis

Vesicular stomatitis is a viral disease, principally of cattle, horses and pigs. It can cause signs indistinguishable from FMD (except that horses can also be infected). The disease has only been seen in north, central and South America. Its epidemiology is still unclear, but transmission cycles between insects and small wild ruminants are known to occur.

Appendix 2

RESPONSE PLAN WHEN ENTERPRISE IS IN A DECLARED AREA

This section addresses the situation in which a saleyard is not designated as an infected premises (IP) or dangerous contact premises (DCP), but is located within either a restricted area (RA) or a control area (CA) for an EAD incident. Further information on recommended quarantine and movement controls is provided in Section 4 of the relevant **Response strategy**.

Continued operation of a disease-free enterprise in a declared area

General principles

During an EAD incident, sales and other public congregations of stock would be prohibited in an RA. Some stock and product movements would be allowed under permit after assessment of the risk and the need for movement.

Following risk assessments, movement of stock and possibly sales would be permitted in a CA. It could be 3 weeks or more (possibly after the incubation period for the particular disease has elapsed) before stock movements are allowed to resume. Since direct selling systems, such as tender or auction sale by description, are available, there may be little justification for congregation of stock in saleyards in CAs. If an EAD incident continues for some time, pressure may mount to allow sales in CAs. Factors that may be taken into consideration in the decision about whether to approve sales in a CA are summarised below.

Considerations for specific establishments

Benefits of sales

Auction sales are a traditional selling option, with proponents claiming that such sales:

- provide an outlet for small lots of stock
- set the price for most classes of stock
- provide a substantial benefit to local communities, particularly increased business activity.

Availability of alternatives

Direct marketing of livestock is becoming increasingly popular. This may involve prices being established by:

- a grid system
- direct negotiation between vendor and buyer
- tender or auction sale by description.

Direct selling options are now available for most species and classes of stock in most parts of Australia.

Disease involved

Saleyards may be very important in the transmission of acute, highly contagious diseases that are spread by close contact, particularly if the disease affects several species — for example, foot-and-mouth disease (FMD). For diseases that affect only one species, such as African swine fever, it may be possible to continue sales for other species, provided that there is no risk of spread via cross-contamination (e.g. via livestock transports).

Diseases spread by insects, such as bluetongue and Rift Valley fever, may require control of congregation and dissemination of stock through saleyards as part of a regional approach.

For other diseases, such as bovine spongiform encephalopathy, which is spread via animal product, there is little benefit in preventing sales. However, good records must be maintained to ensure that stock movements can be traced if necessary. More information on the significance of saleyards in the spread of disease is available in the relevant AUSVETPLAN **Response strategies**.

Type of sale (show or field day)

Sales from which all stock are sent for direct slaughter present less risk than those that result in stock going to other premises. Sales that result in stock being disseminated over wide areas or long distances, or to high-risk operations such as feedlots, may present considerably higher risk.

Shows and field days will also present varying levels of risk, depending on the stock numbers involved, the duration of the event and other factors. Table A2.1 lists some risks and their relative importance. Using such an approach, it may be possible to allow resumption of a show, sale or field day under permit, with conditions limiting the species that may attend, the area from which animals may be drawn, the duration of the event and the proximity of the event to high-risk enterprises.

Table A2.1 Risk factors for saleyards, shows/fairs and field days

Risk factor	**Level of risk factor**		
	Saleyard	**Show/fair**	**Field day**
Animals			
Number	Moderate–high	Low–high	Low–moderate
Range of species	Low	Low–high	Low
Time assembled (days)	≤2	≤14	≤3
Ownership	Large and changing	Few–large	Few
People[a]			
Number of high risk	High	High	Moderate
Number of low risk	Moderate	High	Low–high
Product (amount, risk)			
Stockfeed	Low, moderate	Moderate, high	Moderate, high
Effluent	High, low	Variable	Variable
Produce	Low, low	Moderate, moderate	Low, moderate
Vehicles (risk)			
Livestock	Moderate–high	Low–moderate	Low–moderate
Other	Moderate–high	Moderate–high	Moderate–high
Proximity to other livestock	Possibly close	Generally distant	Possibly close

Minimising risks during continued operation

Livestock

Certain movements of livestock might be allowed in both RAs and CAs, under permits that impose conditions to minimise the risk of disease spread. These movements and associated permit conditions are outlined clearly in Section 4 of each AUSVETPLAN **Response strategy**.

An EAD incident could involve several discrete RAs within one or more CAs. For further details, refer to the relevant AUSVETPLAN **Response strategy**.

If sales are allowed under permit, the following precautions should be applied:

- Sales must not be conducted more frequently than once per week in any premises or part of a premises.
- Saleyard stock must enter and leave on an all-in-all-out basis, with the time for assembly limited to 12 hours before and after sale.
- Mingling and direct contact of stock from different properties must be minimised.
- Saleyards must not be used by other susceptible stock (e.g. as a holding area for in-transit stock).
- Saleyard management must maintain an accurate record of all movements on and off, to be verified against movement permits.
- Sick and dead animals must be examined by a veterinarian, to provide a diagnosis.
- Carcasses should be handled in accordance with the **Disposal Manual**.
- Access to an adequate supply of disinfectant for the disease in question must be assured.

Work animals

Working dogs and horses will be dealt with on a case-by-case basis, depending on the risk they pose through contact with stock outside the premises. In some cases, kennelling or stabling might need to be provided on site.

Stockfeed

Stockfeed will generally not be required at sales. If feed is required in exceptional circumstances, it can be purchased under permit from approved suppliers. Quantities purchased should be those necessary for immediate use. Long-term storage of feed at the saleyard should not be permitted.

Discharges (including water)

Effluent and stormwater emanating from saleyards will be disposed of in a way that prevents direct access by susceptible species. Discharge into municipal sewerage plants is of low risk, partly because of dilution of potentially infectious material, and the considerable time that elapses before fluid waste is released into the wider environment. Effluent disposal systems that involve direct flooding or spraying of effluent onto pastures that are grazed by susceptible stock are not acceptable unless the

effluent is appropriately treated before discharge. Manure will need to be scraped from pens and yards, stacked, disinfected, composted or buried.

Vehicles

Livestock vehicles must be maintained in a clean condition and carry stock from only one property at any one time. Vehicles must be thoroughly cleaned and disinfected between loads.

A vehicle logbook recording details of stock pickups and deliveries must be maintained.

Access and parking are to be controlled.

Non-livestock transport vehicles must be parked separately from livestock transports, to minimise the risk of contamination.

Equipment and materials

All equipment and materials held at the saleyard that are likely to come into contact with livestock, or could be involved in the transfer of infection between animals, are to be maintained in a clean and functional state. Such equipment and materials should not leave the saleyard unless they have been decontaminated, as appropriate for the disease.

Personnel

Transport drivers, livestock agents, livestock handlers and veterinarians must maintain a high degree of hygiene, including cleaning and disinfecting footwear when entering and leaving properties and saleyards, and immediately replacing soiled clothing.

Non-essential movements between work sections should be avoided.

Members of the general public, buyers, other farmers, canteen staff and administration staff must not enter livestock yards or laneways, and may be required to clean and disinfect footwear when entering and leaving saleyards. People who own or care for susceptible stock should be thoroughly decontaminated after handling animals on a farm or in a saleyard (see the **Decontamination Manual**), and must not have contact with susceptible stock for a period, as directed by the local control centre.

Attendance at sales by the general public should be discouraged.

Wild and feral animals

Vermin and feral animals must be controlled. Feral and straying animals of susceptible species must be prevented from entering the saleyards.

Building and structures

In some situations, sales may be conducted on premises that can be secured and adequately cleaned and disinfected. In other situations, sales may be allowed in gravelled or earthen yards. Premises will be cleaned before and immediately after the sale by mechanical removal of organic matter and/or

hosing down, preferably with high-pressure, high-volume water supply. These requirements are consistent with the *Australian Code of Practice for the Selling of Livestock* (23 November 2007)[27], and the Australian Model Code of Practice for Livestock Saleyards and Lairages (2015)[28].

Other precautions

Entry of infected animals or contaminated products to saleyards

The entry of infected (or potentially infected) animals, or contaminated (or potentially contaminated) products into saleyards is prohibited. Procedures outlined in Section 5 will minimise the risk of inadvertently introducing infected animals or contaminated products.

Saleyard implicated in the spread of infection after a sale is completed

If tracing of stock or vehicle movements indicates that infected or potentially infected stock have passed through a saleyard at some stage, action will need to be taken to:

- determine the risk of spread, to enable tracings to be prioritised
- assess the degree of potential residual contamination and implement further decontamination, if necessary.

The time since (possible) contamination, the standard of routine post-sale cleaning and the persistence of the disease agent will be major factors in determining the level of activity required.

[27] http://casinosaleyards.com.au/wp-content/uploads/2018/04/Code-of-Practice-for-Selling-Livestock.pdf
[28] This code is available to members of ALMA.

Appendix 3

RESPONSE PLAN WHEN ENTERPRISE IS AN INFECTED OR DANGEROUS CONTACT PREMISES

This section covers the situation in which a saleyard either has infected or suspect animals or has animals known to have been in direct contact with infected animals.

Continued operation of an enterprise classified as an infected or dangerous contact premises

Deciding whether to suspend or stop a sale

Issues to consider when deciding whether to suspend or stop a sale include:

- the disease suspected, the mechanisms of its spread, and the risk that it will spread to other animals
- the nature of the sale (e.g. will all stock be sold for slaughter, or will they be dispersed to other premises?).

The saleyard management and key staff would be involved in the decision-making process, including consideration of legal procedures and implications. The decision will ultimately be informed by the jurisdictional animal health authority.

Issues to consider if the sale is to be stopped include:

- the ownership of animals that have already been sold — do existing sales stand or should all be cancelled?
- the fate of animals should diagnosis prove negative — can the sale recommence (i.e. will buyers be willing and available)?
- the choice of the person to make a public announcement regarding the suspected disease outbreak (e.g. saleyard manager, chairman of selling agents' association, gazetted inspector of stock or government veterinarian) — considerations include local credibility and authority
- the announcement to be made from a written statement prepared by the chief veterinary officer.

Elimination of the disease agent

In the event of an EAD incident, the saleyard would be quarantined. It is likely that clinical cases, animals from the same property of origin, and animals that have had close contact with clinical cases in the saleyard or during transport to the sale would be valued and destroyed as soon as possible. Refer to the relevant **Response strategy** for policy information. Carcasses would be disinfected before their disposal. Destruction would not be delayed if there were any problems with valuation (see the **Valuation and Compensation Manual**).

The operational aspects of destruction of stock in a saleyard and the disposal of carcasses are addressed in a general sense in the **Destruction of Animals** and **Disposal** manuals. Some aspects of particular relevance to saleyards include the following.

Destruction of animals

- Proximity of other businesses and people will need to be considered. Care will be required to prevent injuries and damage associated with using firearms — in particular, bullets ricocheting from hard surfaces. Captive-bolt pistols may be preferable.
- Screening from public viewing or an extended quarantine area may be appropriate.
- The logistics of destroying large numbers of stock may require considerable ingenuity to set up suitable restraining areas that allow easy stock access and carcass removal.

Salvaging animals for slaughter

Subject to a thorough assessment of the level of direct and indirect contact between infected and susceptible livestock by the jurisdictional animal health authority, it may be possible to identify large groups of animals in a saleyard that can be salvaged for slaughter in an abattoir.

The ability to economically use the meat will be an important consideration. Awareness of the World Organisation for Animal Health (OIE) recommendations for trade in meat and animal products, and the attitudes of trading partners will be crucial to decision making. This approach assumes that it can be established with a high degree of confidence that:

- infected, incubating and other high-risk animals have been identified and destroyed immediately
- a group of low-to-medium risk stock has been identified that has had no direct contact with infected animals and was penned some distance from them; the group may or may not have passed through laneways or scales after the infected animals.

This group of low-to-medium risk stock could be sent for slaughter at an abattoir, provided that the following conditions are met:

- An appropriate abattoir exists nearby, and the stock may be legally transported to it.
- Stock can be transported to the abattoir without close contact with other stock. The stock vehicle should be escorted to ensure that animals reach their prescribed destination. Relevant considerations include the road surface, driving conditions, vehicle types, the terrain and farming systems through which the stock will pass, and public perceptions (especially members of the public who are involved in the livestock industry).
- The abattoir has the capacity to kill all the livestock within the incubation period of the disease, including allowing for disruptions due to breakdowns and possibly industrial action.
- The abattoir can be satisfactorily decontaminated.
- All people concerned (including abattoir management) understand the consequences of slaughtering animals from an IP or DCP on the abattoir's ability to operate, particularly in the case of export abattoirs. These consequences would be influenced by the OIE recommendations for trade, and trading partner attitudes to products from salvage slaughtered animals. A possible consequence is the prolonging of restrictions on an export abattoir because of its use for salvage slaughter of possibly infected livestock.
- The meat, byproducts and effluent can be distributed satisfactorily without the risk of further disease spread.
- The public will accept meat and other products from the abattoir.

In practice, it is very likely that a nil-risk approach would be taken to animal disposal early in an outbreak of disease — that is, there will be immediate destruction on site, and disposal of the carcasses at a site near the saleyard. Should an outbreak continue for some time, this approach may need to be

reviewed and salvage of meat and by-products attempted, because of public and industry perceptions about seemingly needless slaughter and waste. At all times, the most important factors to keep in mind are:

- the relative risk of spread of the disease via various livestock and products emanating from a saleyard
- the high cost of the loss of Australia's export trade in livestock and livestock products compared with the operational costs needed to eradicate the disease.

Other factors that must be taken into account in assessing the risk of spread of disease from saleyards include:

- the length of time that animals are exposed to infective sources, taking into account saleyard practices such as arrival times in relation to curfews and livestock selling systems; practices requiring animals to enter the saleyard some hours before sale will increase the possibility of disease being spread between animals
- the number of actual and potential excretors of virus that have been in the saleyard (i.e. infection challenge) — since the chances of infection increase with increasing doses of infective material, the greater the number of infective animals, the higher the likelihood that disease will be transmitted.

The above guidelines are clearly appropriate for stock assembled for sale for slaughter. Where commercial stock have been assembled for sale for breeding, growing out or finishing (i.e. 'store' sales), the salvage value of the meat may be less because of their poorer body condition; however, the same principles should be applied.

Detection of an EAD in a saleyard may present some unique problems in relation to ownership of stock and valuation (see Appendix 4).

The incubation period of an infectious disease is important in identifying potential risks associated with animals and their products, and is an aid to prioritising activity. It may be justifiable to retain animals in quarantine for longer than the incubation period when stock are of unique genetic merit and/or have had negligible chance of exposure to disease. During this time, they would be inspected frequently.

It is most unlikely that salvage of animals for slaughter at an abattoir would be accepted in the early phases of an FMD outbreak. However, it may be applicable if a less infectious EAD is involved or an FMD outbreak has persisted for some time. Special conditions would apply, and substantial costs would be incurred by the owner.

Disposal

- Because many saleyards are close to built-up areas, it is likely that carcasses will need to be transported some distance to suitable burial or cremation sites.
- In arranging transport of carcasses and other material to these sites, care will need to be taken to prevent leakage of potentially infective material. Sealed, leakproof trucks or adapted tippers (eg with plastic lining and plastic covers) will be required.
- Carcasses and other material may need to be sprayed with suitable disinfectant before being transported.
- A system will be required for ensuring that vehicles and loads reach their destination. Consideration should be given to preventing public access to the transit route until the task, including any necessary cleaning and disinfection, has been completed.

Stockfeed

At some saleyards, stockfeed will be held for use on the premises. This material would be included in any quarantine, assessed for risk, and subsequently disinfected or destroyed.

Decontamination

Discharges

Action taken to dispose of discharges, such as manure and urine, from saleyards will depend on the disease involved and the estimated degree of contamination of the effluent. The level of contamination will be influenced by the species involved, the estimated number of excreting animals and the length of time that they have been excreting into the saleyard environment. For some diseases, effluent from saleyards will present little risk because infectious agents are not excreted in either faeces or urine.

If saleyard environments and effluent are likely to be heavily contaminated, surface spraying of yard and laneway surfaces with a suitable disinfectant, and disposal of the effluent by burial or composting, may be appropriate. If the volume is not great, an acid disinfectant spray should be used, as manure tends towards acid pH and this can be increased by acid treatments. Hypochlorite has limited effectiveness in the presence of high organic loads.

Use of water for decontamination should be minimised because the water itself must be correctly handled to minimise the likelihood of disease transmission.

Treated manure and infectious wastes such as soil and bedding should be removed, and buried or composted in a pit.

If high levels of contamination are unlikely, the most appropriate strategy might be to secure the effluent area to prevent direct contact by susceptible species, and allow decontamination by the natural processes of aerobic and/or anaerobic digestion, exposure to sunlight and time.

Vehicles

A wide range of potential routes can lead to contamination of vehicles. The likelihood of susceptible stock becoming infected from contact with contaminated vehicles will depend on the class of vehicle and the disease.

Livestock transports

The livestock transports that carried the suspect livestock from the property of origin represent the highest risk and should be subjected to meticulous cleaning and disinfection (see the **Decontamination Manual**).

Other livestock transports at the saleyard are unlikely to be contaminated, unless their drivers pick up infectious material (eg manure on their boots) from infected areas in yards or by aerosol spread. Although the likelihood of contamination of these transports with infectious agents is not great, where there is the possibility of close and prolonged exposure to susceptible stock at the saleyard, **all** livestock vehicles should be subjected to a thorough wash, preferably using a low-volume, low-pressure soak with appropriate disinfectant, followed by high-volume, high-pressure cleaning with water.

Following such decontamination, a period of quarantine for the vehicle may be appropriate, to prevent the vehicle carrying susceptible species for the specified period. This might be practical, given the likelihood of a standstill on stock movements and no demand for trucks.

Transports wishing to leave the RA (e.g. to return to a base outside the RA) will require a more meticulous decontamination, similar to that for the vehicles that transported infected stock.

Farmers' vehicles

Farmers' vehicles may have come into contact with stock. These vehicles would be a lower risk than most stock transports because of a lower likelihood of intimate contact with susceptible species for prolonged periods. Any cleaning and disinfection should focus on the high-risk parts of the vehicle. Basic cleaning, including the removal of all remnants of hay and stockfeed, with a general external wash and thorough clean-up of the interior, might be adequate. This could be done at the saleyard or at a local car wash under supervision.

Livestock agents' vehicles

Vehicles belonging to livestock agents and yard workers might have a higher risk of contamination, particularly through contaminated footwear. However, the risk of contact with susceptible animals will generally be less than for farmers' vehicles, unless the agent or yard worker also owns and operates a farm. These vehicles should be treated in a similar fashion to farmer-owned vehicles.

Other vehicles

Vehicles belonging to livestock buyers and the general public are in the lowest risk category. A brief hose-down, or no action, might be sufficient. Decontaminating the vehicle wheels by driving through a disinfectant bath could be considered.

If feed vehicles are present at the saleyard, they can be treated similarly to farmers' vehicles or livestock transports, depending on the assessed degree of exposure.

Equipment and materials

Types and amounts of equipment and materials at saleyards are usually limited. They might include canes, goads, branding paint and brands. Brooms, scrapers, wheelbarrows and tractors may also be held at the saleyard for yard cleaning and maintenance. The appropriate degree of decontamination will depend on the level of exposure of the materials to sources of infection. Livestock handling equipment could have the greatest potential for exposure. Refer to the **Decontamination Manual** for information relating to field equipment. Compensation may be payable for equipment damaged or destroyed during decontamination (see the **Valuation and Compensation Manual**).

Personnel

All personnel should be informed of the required actions and the reasons for them, both verbally and using a short information sheet. For more details, see Appendix 6.

High-risk personnel

High-risk personnel present at saleyards include transport drivers, agents, yard workers, veterinarians and owners of infected stock. They should shower/bathe and change their clothes and footwear before returning home. This could be done at the saleyard or at a nearby motel, hotel or sporting complex. Clothing and footwear must be decontaminated before being returned to owners.

It is recommended that high-risk personnel have no contact with other stock for a period of time recommended by the relevant **Response strategy**.

Medium-risk personnel

Medium-risk personnel include farmers and livestock buyers. They should follow the same procedures as high-risk personnel.

Low-risk personnel

Personnel with the lowest risk of spreading disease include canteen staff and the general public. These people should disinfect their footwear before leaving the saleyard. They should be allowed to shower/bathe, change and wash clothes elsewhere.

Wild and feral animals

Rodents, foxes and cats are the vermin and/or feral animals most likely to be associated with saleyards. Depending on the disease, these animals probably represent a low risk of spreading disease if they gain access to waste material or discharges, but should be considered as part of the decontamination process (with a low priority). Dogs and horses associated with stock handling might also be present in saleyards and require consideration. In some cases, wandering stock may need to be considered. A program should be in place to ensure quarantine security.

Buildings and structures

Buildings and structures might include:

- yards — surfaces could be earth, cobblestone or concrete
- fences — wood or steel
- shelters for stockfeed and water troughs
- liveweight scales — mainly metal, but could be of intricate construction
- shelters and seating for personnel
- canteen and office complex
- machinery and maintenance shed
- stockfeed storage sheds.

All these areas must be assessed for their risk in spread of disease and assigned a priority for decontamination. Areas in which infected stock spend most time are associated with the highest risk, followed by areas through which the stock passed, such as unloading ramps, laneways, scales, and pregnancy-testing races.

High-risk areas

High-risk areas require a preliminary spray with suitable disinfectant, using low volume and low pressure. It might be possible to use the yard sprinkler system. This should be followed by mechanical cleaning and disposal of solid wastes by burial or composting. A final high-volume, high-pressure wash-down with water should be considered. Refer to the **Decontamination Manual**.

Earthen yards

For high-risk areas, earthen floors in buildings may need to be broken up and soaked in disinfectant (see the **Decontamination Manual**).

Permanent surfaces

Concretions and encrustations of material on permanent surfaces are to be removed. This is most easily achieved by low-pressure spraying with water, or water and detergent, using steam cleaners, or by scraping with hand tools. Particular attention should be paid to corners and wall–floor junctions. The surfaces are then washed down using a high-pressure system and plain water.

Feed

All feedstuff considered contaminated must be removed, and buried or composted after valuation. Feeding and water troughs will be emptied and cleaned out.

Low-risk areas

For lower risk areas, a preliminary spray with suitable disinfectant and/or a surface scrape and disposal of surface material may be all that is required, followed by the prevention of stock access for an appropriate time.

Other areas

The amount of cleaning and disinfection required depends on the level of risk. A preliminary spray with suitable disinfectant and mechanical cleaning might be needed. Structures that cannot be adequately decontaminated may need to be removed and buried, with compensation paid (if available).

Other

Consideration will need to be given to quarantining and securing of premises, including holding yards, effluent disposal areas and truck-wash areas. The most difficult stage will be implementing quarantine movement controls upon first suspicion of disease. Reliable and rapid risk assessment is essential, with a focus on priority areas. The least possible disruption to normal movement patterns will help to maintain public cooperation, while minimising risk.

Tracing requirements

Tracing should focus on identifying the source(s) of infection and possible spread of infection via movement of stock, vehicles and people. Considerations include the following:

- Infected livestock (and susceptible livestock that have had prolonged, intimate, direct contact or prolonged, indirect contact with affected livestock) are the highest priority.
- The time of detection of infected livestock, in relation to when other stock have assembled and/or disseminated, will influence priorities and the magnitude of the task.
- Detected cases may not be the index case. Therefore, other livestock at the saleyard might have been exposed to the index case before their arrival at the saleyard and might be incubating disease and/or excreting the disease agent.
- A starting point in the tracing procedure is to identify the transport and operator that carried the livestock, and all subsequent properties visited by, and livestock exposed to, the transport operator.
- Tracing from the infected premises could identify the source of infection, which will then generate another round of tracing.

Other tracing possibilities that potentially could be important in dissemination of disease include:

- stock that have already left the sale (sold or returned to properties)
- other stock that were in yards and have left (e.g. resting stock or stock being transhipped)
- trucks and other equipment that have delivered stock and left the saleyard
- trucks that have been to other properties after their first delivery (a list of these properties will be required)
- people who visited the saleyard earlier in the day, or the evening before, and have since left
- other animals, such as dogs or horses, in the area — these should be confined.

It is important that documents and systems (e.g. the NLIS database) are kept up to date to ensure that accurate tracing can occur.

Proof of freedom

Proof of freedom from disease must meet both Australian veterinary requirements and the relevant OIE provisions. Disease-specific information on proof of freedom is available in the relevant **Response strategy**.

Necessary steps are standard cleaning and disinfection procedures, followed by a stock-free period (which will vary with the disease), and then possible placement of sentinel animals in the most highly contaminated area of the premises. This will be followed by close observation for a period longer than the incubation period (see the relevant **Response strategy** for more detail).

Media and public relations

Veterinarians, farmers, saleyard staff, transporters and all those involved in the EAD incident need to be very careful about providing information to the media, either directly or indirectly. Communication with the media should address only activities that directly affect the saleyard and transport vehicles. General inquiries about the particular disease or the control activities that are being undertaken in the area must be directed to the Public Relations Unit in the LCC (see the **Public Relations Manual**). Maintaining an appropriate channel of communication with the media is an important function of the LCC. This is made very difficult if other information is coming from elsewhere that may appear to conflict with advice given by the LCC.

Appendix 4

VALUATION AND OWNERSHIP OF STOCK AT SALEYARD

The detection of an EAD in a saleyard could present some unique problems in relation to ownership of stock and valuation.

Depending on when a sale is halted, stock may belong to either the vendors or the buyers.

Vendors

Selling agents' records will provide details of ownership of vendors. Most cases will be straightforward, but potential problems may exist in relation to:

- sale of bobby calves, where records may be minimal and cash transactions are normal
- ownership of stock by dealers — agents and dealers may be hesitant about the true ownership and history of livestock; some agents deal in livestock themselves.

Buyers

In most auction systems, legal ownership changes upon the fall of the hammer. However, it is not unusual for some buyers to renege on a purchase if they subsequently discover something that they consider might disadvantage them.

An understanding of the relevant legislation is important, because some buyers may wish to renege on purchases when an EAD is confirmed or suspected.

Appendix 5

HOLDING OF LIVESTOCK

Issues to be considered if livestock are to be held at saleyards are summarised below.

Animal welfare

Animal welfare issues to consider include:

- provision of water, feed and shelter
- species, age, class and physiological status of animals
- animal health monitoring
- the special needs of bobby calves, recently weaned young stock, lactating females, heavily pregnant females, and stock that are very thin, old or weak
- the anticipated delay before stock may be moved or destroyed; a diagnosis will usually be available within 24 hours, but delays of up to 3 days might occur
- relevant codes of practices and legislation.

Environmental factors

Environmental factors to consider include saleyard structure and facilities, such as:

- availability and quality of water for stock
- effluent disposal system — affects where and what stock can be fed (e.g. hay might block many effluent disposal systems); and whether the system has the capacity to handle effluent from the number of stock to be held for the envisaged period
- nature of yard surfaces — hard stone or concrete surfaces will result in lameness and downer stock (heavy stock are most susceptible); earthen surfaces are less stressful but may result in dust and mud problems
- availability of appropriate shelter for the classes of stock involved.

Climate

Extremes of weather (e.g. very hot, or cold, wet and windy) will create stress on livestock and increase the importance of provision of water, feed and shelter.

Disease risk

Source of infection to neighbouring premises

Issues relating to the risk of spread of infection to other premises include:

- the nature of disease suspected
- mechanisms of disease spread; for example
- windborne spread (of greatest concern for FMD)
- transmission by insects
- spread in effluent
- spread by escaped livestock and feral animals
- proximity and nature of at-risk premises (eg feedlots, piggeries, dairies, abattoirs or general grazing properties)
- whether the high density of stock will generate high concentrations of infective material or organisms.

Ability to decontaminate premises

Issues to consider relating to decontamination of the premises include:

- effect of holding stock for an extended period on the ability to effectively decontaminate the premises — for example, leaving stock on earthen yards for several days in hot conditions could result in a layer of mud that may be difficult to decontaminate
- whether holding of stock will result in expression and dissemination of endemic diseases such as salmonellosis, colibacillosis, pink eye and respiratory tract diseases.

Logistics

The logistics of obtaining and dispensing to livestock adequate supplies of safe, appropriate feed and water should be considered. Feeding 1,000 bobby calves will be a test of logistics and the patience of all concerned.

Costs

Costs that will be incurred include:

- feedstuffs
- labour — for procuring and dispensing feedstuffs, and cleaning and maintenance of yards
- veterinary costs for livestock that become ill.

These costs may be covered if the disease is included in the Emergency Animal Disease Response Agreement.

Appendix 6

GUIDELINES FOR STAFF WHEN AN EAD IS SUSPECTED IN A SALEYARD

Before government staff assume control and quarantine premises or declare an infected premises

When an EAD occurs or is suspected, the only people who can give lawful directions to people, or impose lawful movement controls over animals, are those authorised under the state's relevant animal diseases legislation, such as government veterinarians or gazetted inspectors of stock.

There may be a delay between when an EAD is suspected by a person working in a saleyard and when the government veterinarian or gazetted inspector of stock takes control of the situation and issues lawful directions. Under these circumstances, the saleyard manager needs to seek full cooperation from people entering and leaving the premises, especially livestock transporters.

In seeking cooperation, the manager should ensure that all people who leave without following advice (such as decontamination or, simply, awaiting the arrival of the government veterinarian) are aware that they could be subsequently liable for any costs from the spread of disease as a result of their negligence.

The manager should not delay in setting up facilities to allow people to leave the premises. If people choose to leave (and they may have good reasons for doing so), they will then be able to do so with less risk. Also, if the government veterinarian or gazetted inspector of stock decides that formal quarantine is warranted (sometimes requiring the declaration of the saleyard as an infected premises (IP)), preparations already made will assist movements of people off the premises.

The following procedures, which relate especially to suspected FMD, should be documented in saleyard response plans.

Saleyards managers should:

- ensure that notes are made of the exact clinical signs they observe in the affected stock
- immediately call their state or territory government veterinarian or the Emergency Animal Disease Watch Hotline (1800 675 888), explaining what they can see
- compile a register of all people in attendance at the saleyard
- isolate the affected animals, to minimise exposure of any other animals or people to the affected stock until the government staff arrive
- cease loading any stock, and make every effort to ensure that transports do not leave the premises until the situation is clarified by a government veterinarian
- where transporters refuse to wait, encourage them to use the truck-wash facility to decontaminate their crates and assist them to do the job properly (including by providing disinfectant); request information on where they intend to go
- request that people who are wishing to move off the premises remain until approval is given
- establish a decontamination point so that people who refuse to wait may decontaminate their skin and footwear
- give each person a classification based on their contact, or suspected contact, with the affected stock
- for people classified as low risk, provide decontamination at the exit point, with a request that they go home immediately, shower and wash clothing and footwear
- for people classified as high risk, encourage them to shower and change on the premises and to bag their clothes for subsequent laundering

- advise any early leavers that they should not have contact with other livestock for a period of time recommended by the relevant **Response strategy**
- lock all exits other than the one through which people may be processed
- await the arrival of a diagnostic team (if one is dispatched by the chief veterinary officer (CVO)) to closely examine the animals and plan for providing the team with assistance with restraint and sample collection
- prepare a map of the saleyard to assist management of any response
- begin compiling a register of stock on the premises and their origin, and stock that have left and their transporter and destination
- identify a quarantine area that will provide a 100-metre buffer between affected animals and other animals in the saleyard, for use if the veterinarian requires animals to be further isolated
- restrict other animal movements; stock should be moved using as few people as possible, to minimise contact between people and affected animals.

When the premises is quarantined or declared an infected premises

Once a premises is declared an IP, almost all of its activity will be under the control of a government veterinarian or gazetted inspector of livestock under the relevant legislation. As a result of the quarantine, no animals, people, vehicles or things may enter or leave the saleyard without approval of the inspector. Police may be on hand to assist. During this period, the saleyard manager and staff will be requested to help with:

- padlocking or blocking all exits
- decontaminating people off the premises
- maintaining a register of people leaving the premises and their potential to contact susceptible livestock
- preventing the movement of animals and vehicles
- decontaminating vehicles
- decontaminating or confining dogs
- ensuring that any people who are hired to work on the premises do not live on a farm or come into contact with susceptible animals as part of their day-to-day activities
- providing roving patrols around the boundary
- staffing vehicle disinfection points
- collating records of animals that are present in the saleyard, as well as preliminary tracing information on movements from the saleyard, including:
    - the origin and ownership of all stock in the saleyard
    - vehicles and people that have had contact with the affected stock, and their movements
    - stock that have left, and their transporters and destinations
- organising feed and water for detained stock
- informing all people present on the complex about how they can cooperate
- ensuring that all media enquiries are transferred to the relevant and designated local control centre (LCC) public relations officer
- planning for the destruction of livestock, so that advice can be given to the LCC Controller on the best methods for destruction as soon as the CVO authorises slaughter
- planning and undertaking the valuation process
- planning for the disposal of carcasses and product
- planning for cleaning and disinfection of the complex
- advising owners of any stock that are still on-farm not to send the stock to the saleyards

- advising stock transports that are loaded with stock in transit to the saleyard to pull over to the nearest rest area and await further instructions
- negotiating with other saleyards where in-transit stock caught in a standstill need to be unloaded and rested before the return journey
- tracing stock vehicles and people, based on a risk assessment undertaken on all movements; priority will be given to tracing movements that have the highest risk of spreading disease
- cleaning and disinfecting the saleyard to eliminate any possible source of the disease agent, without causing environmental damage and without further spreading the agent.

Appendix 7

EXAMPLE OF SALEYARD ACTION PLAN FOR A NATIONAL LIVESTOCK STANDSTILL

When a livestock standstill is declared by a government, all stock must stay where they are unless they are in transit. Most of those in transit will be required to return to their place of origin, but some may continue to their destination, including a saleyard.

All around Australia, saleyards will contain livestock that will not be allowed to move. Experience has shown that even saleyards that are quite remote from the first infected property are likely to have had exposure to the disease, because rapid movement of stock and stock transport vehicles occurs across the nation.

All saleyards should prepare for such an eventuality by preparing a Saleyard Action Plan. The following example was developed by Biosecurity Victoria in 2003. It is included here to give guidance to saleyard operators in all states and territories about how to prepare for a national livestock standstill in the event of an outbreak of FMD.

Saleyard Action Plan for a National Livestock Standstill

This action plan was created by the Victorian Department of Primary Industries (DPI) and launched at a Livestock Saleyards Association of Victoria (LSAV) meeting in June 2003. Minor style and formatting edits have been made for the purposes of this manual.

1. Background

The Australian Productivity Commission has calculated the costs of a 'short' FMD outbreak at $3 billion. A multistate 12-month outbreak has been estimated to cost Australia $8–13 billion. Key beef and lamb markets would not reopen until at least 6 months after FMD was eradicated.

Speed is of crucial importance in controlling FMD. In the 2001 United Kingdom outbreak, FMD is thought to have been unrecognised for around 3 weeks. During this time, the disease spread extensively, mostly by movement of pigs and sheep. As a result, 2030 farms were infected and some 4.9 million sheep, 0.7 million cattle and 0.4 million pigs were slaughtered. The UK 'Lessons Learned' inquiry cites the need for 'rapid deployment of resources and the importance of speed' to minimise effects of a highly contagious disease such as FMD.

In the Victorian/Australian context, a Livestock Standstill Order would be imposed immediately a diagnosis of FMD was made anywhere in the nation. The standstill provides authorities with the time to assess disease risks and minimise the chances of spread through livestock trade and movement.

Rapid implementation of a livestock standstill will be a major challenge to the saleyard industry — saleyards themselves, producers, stock agents, transporters, local and state governments. Successful implementation of a standstill is vital to halt or slow the spread of disease. A Saleyard Livestock Standstill Plan will require the consideration, consultation and cooperation of all involved. The end point will be a written plan for each saleyard. The plan must be updated continuously, AT LEAST once a year.

If FMD is suspected or diagnosed in any susceptible animal at a saleyard, the saleyard may be designated as a suspect premises (SP), dangerous contact premises (DCP) or infected premises (IP). In this event, quarantine will be imposed on all stock at the saleyard and, in the case of DCPs and IPs, compulsory slaughter will follow. Saleyard Livestock Standstill Plans are to assume that the saleyard is not an SP, DCP or IP.

2. Aim

The purpose of this proforma is to provide saleyard operators with the background knowledge and framework, so that each saleyard can create its own Saleyard Livestock Standstill Plan and implement the plan if a Livestock Standstill Order is announced, especially on a sale day. If a Livestock Standstill Order is announced before a sale day, the action plan should detail how each saleyard will go about informing stock agents, producers, transporters and buyers of the sale's cancellation.

3. Legislation

The Minister for Agriculture will make the Livestock Standstill Order under the *Livestock Disease Control Act 1994*. The Order will usually be invoked in Victoria following confirmation of FMD in any other state as part of a National Livestock Standstill. The provisions of the Order will be implemented for an initial period of 72 hours. Easing, lifting or extending the Order will be based on risk assessment and the nature of the disease outbreak.

The Order only applies to FMD-susceptible species such as cattle, sheep, goats, deer, pigs and alpaca. It will not apply to nonsusceptible species, such as horses or poultry unless they have been in direct contact with infected animals and could carry the virus (in this case they will be classed as 'Specified Livestock').

4. Notification and communications

The chief veterinary officer (CVO) of Victoria will inform the LSAV of a Livestock Standstill Order by electronic means (facsimile and/or email). The order will be accompanied by an explanatory information package giving arrangements, for example, for stock in transit. The LSAV will be requested to notify all saleyards immediately by forwarding electronic copies of the order and package. All other affected industry organisations (eg abattoirs, Victorian Farmers Federation, United Dairyfarmers of Victoria, Livestock Transporters Association of Victoria) and local government will be informed officially, usually by facsimile or by email.

In addition, there will be immediate and widespread dissemination of the order by national and local media — principally radio and television, backed up by the national and rural press. With a sale in progress, a saleyard official or a DPI officer will read a prepared statement informing all present of the provisions of the Livestock Standstill Order and its immediate imposition on all susceptible livestock.

5. Saleyard risk assessments

The purpose of the Livestock Standstill Order is to allow DPI time to assess the risk that any animal within a saleyard may have been exposed to FMD virus. For this to be achieved, DPI staff will require details of the ownership and origin of each consignment. Stock agents assisted by the saleyard management will be expected to provide DPI with lists of number and class of livestock by vendor and their Property Identification Codes (PICs) and the name of transporters.

6. Compensation issues

If stock are destroyed for disease control purposes, compensation is payable under the cost-sharing arrangements between the Australian Government, state and territory governments, and industry. The issue of compensation for stock caught up in a livestock standstill but not destroyed is unresolved. This grey area includes things like costs of feeding, loss of body weight, lost marketing opportunities and many other issues. However, the issue is recognised at the highest levels of the Australian and state/territory governments.

7. Contact lists

The Saleyard Livestock Standstill Plan should include lists of the names and contact details of all parties likely to be involved — for example, stock agents, vets, feed suppliers, transporters, local government and DPI. Contact details for the closest abattoirs, renderers and knackeries may be required urgently — for example, if a group of bobby calves are released by permit for urgent welfare slaughter. See below for a Contact List proforma.

8. Reference material

AUSVETPLAN Enterprise Manual: **Saleyards and Transport**

DRAFT ACTION PLAN FOR SALEYARD LIVESTOCK STANDSTILL[29]

Prepared by the_____

…… LIVESTOCK EXCHANGE/SALEYARD

Dated ……../……../20…….

1. *Business details*

Registered name of saleyard	
Postal address	
Postcode	
Physical address/location	
Office phone number	
After-hours phone number	
Manager's mobile	
Facsimile number	
Email address	
ABN	

For each heading below, consider the following for inclusion in your plan:

- **What** needs to be done, what should be recorded?
- **Why** is a task necessary? (Understanding should result in better compliance.)
- **Who** is to do it (the person or responsible position — Saleyard Manager, DPI official)?
- **How** is the task to be performed (the method)?
- **When** are they to do it (sequence, logical order, degree of urgency)?
- **Where** is the task to be performed?

[29] Please lodge a copy of your Saleyard Livestock Standstill Plan with the Livestock Saleyards Association of Victoria.

2. Saleyard staff and command

- What — record the management structure, who supervises/informs who, list of employees by position and their contact details.
- Why — so that all involved in implementing a Saleyard Livestock Standstill Plan (SLSP) can be informed of their role(s) ahead of time.
- Who — the person responsible for writing the plan.
- How — staff structure diagram, staff list with positions and duties.
- When — when plan is drafted, before any emergency.
- Where — to be included in the written plan.

3. Important saleyard contacts

- What — create a detailed list of important contacts with all relevant details.
- Why — to know how and who to contact in an emergency.
- Who — the person responsible for writing the plan.
- How — fill in all details as per below.
- When — when plan is drafted, before any emergency.
- Where — to be included in the written plan in below.

4. Livestock Standstill Order released on a non-sale day

- What — the Order will have been received by fax or email. All parties involved with the saleyard must be informed of the provisions of the Order as soon and as effectively as possible.
- Why — to prevent stock leaving their properties of origin and potentially being exposed to, or spreading, disease at a saleyard; to save producers, transporters and saleyards financial losses.
- Who — the saleyard manager will be responsible for informing stock agents. Stock agents must inform their clients and transporters. The Order will also be widely publicised on the electronic media — radio and television — backed up by the print media.
- How — by electronic means (telephone, facsimile or email).
- When — as soon as the Livestock Standstill Order is received.
- Where — process is to be managed from the offices of the saleyard manager and stock agents.

5. Announcing a Livestock Standstill Order and provisions for sales in progress

- What — the Order will have been received by fax or email. All parties involved with the saleyard must be informed of the provisions of the Order as soon and as effectively as possible.
- Why — to minimise any unauthorised livestock movements with attendant risks of disease transmission.
- Who — the saleyard manager or a DPI official is responsible for announcing the provisions of the Order.
- How — the provisions of the Order are to be announced to all present at the saleyard, preferably over a public address system. A handout and copy of the order prepared by DPI is to be posted in prominent places and distributed to all present.
- When — immediately the Livestock Standstill Order is received.
- Where — within the saleyard premises, including parking, cafeteria and wash-down areas.

6. Securing the saleyard

- What — preventing the unauthorised movement of livestock and loaded transports into or out of the saleyard premises.
- Why — to prevent unauthorised entry/exit with attendant risks of disease transmission.
- Who — DPI officers, the saleyard manager, assisted by saleyard staff and Victoria Police.
- How — close and lock gates, block roads with vehicles, barriers or boomgates.
- When — immediately the Order is received.
- Where — will be dictated by saleyard layout; access points to be identified in plan. (Note: please attach a map of the saleyard and associated roads, fences, boundaries and drainage lines to this plan.)

7. Assisting DPI

- What — DPI officers will require considerable assistance **(**for example, details of the ownership and origin of each consignment, the name of the transporter, a list of number and class of livestock by vendor and their Property Identification Codes **[**PICs**])**. Stock agents**,** assisted by saleyard management**,** will be expected to assist DPI to obtain this information as soon as possible. A proforma for the information required by DPI is presented below.
- Why — for the DPI risk assessment, it is crucial that DPI staff know where each consignment has come from and how and who has transported each consignment. Where consignments have gone to is vital for trace-forward purposes.
- Who — the saleyard manager should assign a person with the clerical knowledge and skills to work with stock agents to provide DPI with the information required.
- How — work with stock agents to prepare lists of the information requested by DPI (see below).
- When — as soon as possible after announcement of the Livestock Standstill Order.
- Where — by hand delivery to DPI at the saleyard or by electronic means to a fax or email address provided by DPI.

8. People issues

- What — there are no laws restricting movement of persons (unless infection is actually suspected in saleyards). However, advice to all present on precautions for personal biosecurity will be provided by DPI (see below).
- Why — to minimise risks that any person will have footwear, clothing or a vehicle contaminated by potentially infectious material.
- Who — saleyard manager to distribute the information provided (see below).
- How — public announcement backed up by pre-prepared paper handout.
- When — immediately the Livestock Standstill Order is received.
- Where — within the saleyard premises, including parking, cafeteria and wash-down areas.

9. Livestock transports

- What — loaded transports still at saleyards must be unloaded; stock must be confined. Recommendations for cleansing all unloaded transports before they leave saleyard are given below. A separate parking lot should be provided for personal (nontransport) vehicles.
- Why — to prevent loaded transports leaving, to minimise risks of transports spreading infection.
- Who — saleyard manager/DPI to announce, truck operators to cleanse trucks.
- How — public announcement backed up by pre-prepared paper handout. Note: There is no law preventing the movement of transporters in the situation where FMD is diagnosed in

another state, but it is in the interests of the industry that all transports, clothing and footwear be cleansed before leaving the saleyard.
- When — immediately the Livestock Standstill Order is received.
- Where — within confines of saleyard, parking lot, wash-down bay.

10. Livestock already trucked from saleyards (in transit to destination(s)

- What — livestock movements that commenced before the Livestock Standstill Order coming into effect may be completed, provided completion is within 12 hours. DPI will specify procedures for loaded trucks in transit and perform risk assessments on a case-by-case basis.
- Why — to minimise the risk of disease spread; to record possible traces.
- Who — stock agents, assisted by saleyard manager and staff, to contact and inform drivers, to record all details and to pass on to DPI for risk assessment and possible surveillance visit. Information required by DPI can be listed (see below).
- How — refer to the list below and/or contact trucking companies for drivers' details, destination(s) and mobile phone numbers.
- When — immediately the Livestock Standstill Order is received.
- Where — managed from the saleyard and agents' offices. Information recorded below.

11. Livestock in saleyards

11.1 Holding arrangements (timeframe)

- What — livestock are to be held in the yards for the minimum term specified in the Order.
- Why — to minimise risks of disease spread while DPI assesses risks.
- Who — saleyard management in association with DPI manages the holding operation.
- How — livestock to be held in secure pens or saleyard paddocks.
- When — from the time the Livestock Standstill Order is received and announced. Note: Individual consignments may be released under permit before the expiry of the Order.
- Where — on the saleyard premises.

11.2 Feeding and watering arrangements

- What — stock must have access to drinkable water at all times. Fodder (hay) will have to be brought in on the second day of confinement.
- Bobby calves must be fed within 24 hours of leaving their home farm. This will be a particular challenge; humane destruction may be required if they cannot be fed within this time.
- Why — to meet animal welfare requirements and to preserve, as far as possible, the commercial value of the stock.
- Who — feed merchants and contractors will need to be tasked with supplying fodder. The issue of 'who pays' is unresolved at this time but is under discussion at high levels of government.
- How — fodder, usually hay, will be distributed to held stock in amounts determined by the number and class of stock.
- When — fodder is to be supplied from the second day after imposition of the Livestock Standstill Order.
- Where — stock are to be fed in their pens.

11.3 Security

- What — stock must be prevented from leaving the confines of the saleyards until termination of the Order or until official DPI approval or a permit allows their movement.
- Why — to minimise risks of disease spread and to allow time for DPI risk assessments.
- Who — security contractor to be supervised by DPI official.
- How — security contractor to provide 24-hour coverage to ensure no unauthorised livestock movements occur.
- When — as soon as possible after announcement of the Livestock Standstill Order until the Order is revoked or expires. Individual consignments may be released with a permit issued by a government veterinarian or gazetted inspector of stock.
- Where — security must be maintained at the checkpoints (locked gates or blocked roads).

11.4 Release of livestock from saleyards

- What — stock will be released from saleyards when official approval from DPI is given. This may be by individual permit issued by a government veterinarian or gazetted inspector of stock or by expiry of the Order.
- Why — to allow movement to properties or meat works after completion of risk assessment.
- Who — DPI will publicise the expiry date of the Order and/or provide individual owners with permits.
- How — release of stock ahead of expiry of the Order will be by written DPI permit. Expiry of the Order will be widely publicised on radio and television and in local newspapers.
- When — as soon as the risk assessment process is complete.
- Where — permits will be provided on a risk-assessed basis to owners and transporters.

SALEYARD LIVESTOCK STANDSTILL ORDER — CONTACT LIST

This list should include full contact details for the organisations, businesses and persons listed. It must be updated not less than once per year.

Organisation	Contact person	Phone	Facsimile	Mobile	Email address
Abattoir — 1					
Abattoir — 2					
Abattoir - 3					
DPI office — nearest					
DPI District Veterinary Officer					
DPI Senior Veterinary Officer					
DPI Chief Veterinary Officer					
EPA nearest office					
Feed agent — 1					
Feed agent — 2					
Feed agent — 3					
Knackery — nearest					
Local government					

Organisation	Contact person	Phone	Facsimile	Mobile	Email address
Neighbour — 1					
Neighbour — 2					
Neighbour — 3					
Renderer — nearest					
Stock agent — 1					
Stock agent — 2					
Stock agent — 3					
Transport company — 1					
Transport company — 2					
Transport company — 3					
Worker 1					
Worker 2					
Worker 3					
Victoria Police					

DRAFT ANNOUNCEMENT AND PUBLICITY FOR A SALEYARD LIVESTOCK STANDSTILL ORDER

When a livestock standstill order is imposed on a sale day, this statement should be read out by the saleyard manager or by a DPI officer. It should be posted with a copy of the Livestock Standstill Order at multiple locations around the saleyard.

'This notice is to inform all interested parties that a Livestock Standstill Order was received from the Chief Veterinary Officer of Victoria at ……..(time) on ……/……../20…….(date).

The Order is signed by the Minister of Agriculture ……(insert name) at ……..(time) on ……/……../20…….(date). The order is issued under Section 29 of Victoria's *Livestock Disease Control Act 1994*.

The Order has been issued following the diagnosis of foot-and-mouth disease (FMD) in ……..(insert state).

The purpose of the Order is to provide authorities with the time to assess disease risks and minimise the chances of spread through livestock trade and movements. DPI will be working closely with all parties, particularly agents, to determine the origin of all stock yarded and whether any present a risk of spreading FMD in Victoria.

The provisions of the Order relevant to this saleyard are:

1. That the whole state of Victoria is declared a control area in respect to the exotic disease foot-and-mouth disease.

2. Movement of all susceptible livestock — that is, cattle, sheep, goats, deer, pigs or alpaca— to or from any premises within Victoria is prohibited unless in accordance with a written permit issued by a government veterinarian or gazetted inspector of stock.

3. No susceptible livestock are to enter or leave this saleyard, with immediate effect, unless in accordance with a permit issued by a government veterinarian or gazetted inspector of stock.

4. No shows, sales or gatherings of susceptible livestock are to be held for the duration of this Order.

5. All susceptible livestock are to be held at this saleyard until expiry of the Livestock Standstill Order on ……../……/20……(insert date) or until a permit is issued for the entry or release of any consignment by a government veterinarian or gazetted inspector of stock.

6. The Order may, if necessary, be extended for a further period.

7. DPI and saleyard management seek the cooperation of all persons — livestock owners, transporters, agents and buyers — to implement the provisions of this standstill.'

The following advice is given to all people present within the premises of this saleyard:

1. All persons are advised that before leaving this saleyard, they should ensure that their footwear and clothing are not contaminated by dung. A pressure hose should be used to cleanse private vehicles contaminated by animal manure before leaving these premises. Special attention should be directed at tyres and the undersides of mudguards and the bottom of trays. Roll the vehicle forward slightly to cleanse the underside of tyres. A pressure hose will be made available at……

2. All persons are advised to shower and to change their footwear and all clothing at their first opportunity BEFORE having any contact with livestock. Footwear should be disinfected and clothes laundered in a hot wash.

3. Transport operators are advised to follow the personal recommendations listed above. In addition, they are advised to wash their truck with a pressure hose before leaving these premises. Particular attention should be paid to the tray, tyres and undersides of mudguards. Roll the vehicle forward slightly to cleanse the underside of tyres. After pressure hosing, these should be free of visible dung. Mats from the interior should be hosed down and be free of dung. A pressure hose is available at the truck wash.

4. All livestock have or will have access to drinking water today. Contractors will be hired to feed livestock as soon as possible. Owners and buyers are asked not to return to this saleyard until their stock are released.

PLAN OF SALEYARD

Please append a plan of your saleyard. The plan should show pens, paddocks, roads, laneways, buildings, drainage and effluent ponds, parking areas, fences and boundaries. The plan should indicate where roadblocks would be set up to restrict access to the saleyards. If neighbouring properties ever run susceptible species (cattle, sheep, goats, pigs, deer, alpaca), they should be indicated on the plan as 'grazing property', with the name and contact details of the owner, lessor or responsible person listed in the contact list.

Glossary

Standard AUSVETPLAN terms

Term	Definition
Animal byproducts	Products of animal origin that are not for consumption but are destined for industrial use (eg hides and skins, fur, wool, hair, feathers, hooves, bones, fertiliser).
Animal Health Committee	A committee whose members are the chief veterinary officers of the Commonwealth, states and territories, along with representatives from the CSIRO Australian Centre for Disease Preparedness (CSIRO-ACDP) and the Australian Government Department of Agriculture, Water and the Environment. There are also observers from Animal Health Australia, Wildlife Health Australia, and the New Zealand Ministry for Primary Industries. The committee provides advice to the National Biosecurity Committee on animal health matters, focusing on technical issues and regulatory policy. *See also* National Biosecurity Committee
Animal products	Meat, meat products and other products of animal origin (eg eggs, milk) for human consumption or for use in animal feedstuff.
Approved processing facility (APF)	An abattoir, knackery, milk processing plant or other such facility that maintains increased biosecurity standards. Such a facility could have animals or animal products introduced from lower risk premises under a permit for processing to an approved standard.
At-risk premises (ARP)	A premises in a restricted area that contains a live susceptible animal(s) but is not considered at the time of classification to be an infected premises, dangerous contact premises, dangerous contact processing facility, suspect premises or trace premises.
Australian Chief Veterinary Officer	The nominated senior veterinarian in the Australian Government Department of Agriculture and Water Resources who manages international animal health commitments and the Australian Government's response to an animal disease outbreak. *See also* Chief veterinary officer
AUSVETPLAN	*Aus*tralian *Vet*erinary Emergency *Plan*. A series of technical response plans that describe the proposed Australian approach to an emergency animal disease incident. The documents provide guidance based on sound analysis, linking policy, strategies, implementation, coordination and emergency-management plans.
Carcase	The body of an animal slaughtered for food.
Carcass	The body of an animal that died in the field.
Chief veterinary officer (CVO)	The senior veterinarian of the animal health authority in each jurisdiction (national, state or territory) who has responsibility for animal disease control in that jurisdiction. *See also* Australian Chief Veterinary Officer

Term	Definition
Compartmentalisation	The process of defining, implementing and maintaining one or more disease-free establishments under a common biosecurity management system in accordance with OIE guidelines, based on applied biosecurity measures and surveillance, to facilitate disease control and/or trade.
Compensation	The sum of money paid by government to an owner for livestock or property that are destroyed for the purpose of eradication or prevention of the spread of an emergency animal disease, and livestock that have died of the emergency animal disease. *See also* Cost-sharing arrangements, Emergency Animal Disease Response Agreement
Consultative Committee on Emergency Animal Diseases (CCEAD)	The key technical coordinating body for animal health emergencies. Members are state and territory chief veterinary officers, representatives of CSIRO-ACDP and the relevant industries, and the Australian Chief Veterinary Officer as chair.
Control area (CA)	A legally declared area where the disease controls, including surveillance and movement controls, applied are of lesser intensity than those in a restricted area (the limits of a control area and the conditions applying to it can be varied during an incident according to need).
Cost-sharing arrangements	Arrangements agreed between governments (national and states/territories) and livestock industries for sharing the costs of emergency animal disease responses. *See also* Compensation, Emergency Animal Disease Response Agreement
Dangerous contact animal	A susceptible animal that has been designated as being exposed to other infected animals or potentially infectious products following tracing and epidemiological investigation.
Dangerous contact premises (DCP)	A premises, apart from an abattoir, knackery or milk processing plant (or other such facility), that, after investigation and based on a risk assessment, is considered to contain a susceptible animal(s) not showing clinical signs, but considered highly likely to contain an infected animal(s) and/or contaminated animal products, wastes or things that present an unacceptable risk to the response if the risk is not addressed, and that therefore requires action to address the risk.
Dangerous contact processing facility (DCPF)	An abattoir, knackery, milk processing plant or other such facility that, based on a risk assessment, appears highly likely to have received infected animals, or contaminated animal products, wastes or things, and that requires action to address the risk.
Declared area	A defined tract of land that is subjected to disease control restrictions under emergency animal disease legislation. There are two types of declared areas: restricted area and control area.
Decontamination	Includes all stages of cleaning and disinfection.
Depopulation	The removal of a host population from a particular area to control or prevent the spread of disease.

Term	Definition
Destroy (animals)	To kill animals humanely.
Disease agent	A general term for a transmissible organism or other factor that causes an infectious disease.
Disease Watch Hotline	24-hour freecall service for reporting suspected incidences of exotic diseases — 1800 675 888.
Disinfectant	A chemical used to destroy disease agents outside a living animal.
Disinfection	The application, after thorough cleansing, of procedures intended to destroy the infectious or parasitic agents of animal diseases, including zoonoses; applies to premises, vehicles and different objects that may have been directly or indirectly contaminated.
Disinsectisation	The destruction of insect pests, usually with a chemical agent.
Disposal	Sanitary removal of animal carcasses, animal products, materials and wastes by burial, burning or some other process so as to prevent the spread of disease.
Emergency animal disease	A disease that is (a) exotic to Australia or (b) a variant of an endemic disease or (c) a serious infectious disease of unknown or uncertain cause or (d) a severe outbreak of a known endemic disease, and that is considered to be of national significance with serious social or trade implications. *See also* Endemic animal disease, Exotic animal disease
Emergency Animal Disease Response Agreement	Agreement between the Australian and state/territory governments and livestock industries on the management of emergency animal disease responses. Provisions include participatory decision making, risk management, cost sharing, the use of appropriately trained personnel and existing standards such as AUSVETPLAN. *See also* Compensation, Cost-sharing arrangements
Endemic animal disease	A disease affecting animals (which may include humans) that is known to occur in Australia. *See also* Emergency animal disease, Exotic animal disease
Enterprise	*See* Risk enterprise
Enzyme-linked immunosorbent assay (ELISA)	A serological test designed to detect and measure the presence of antibody or antigen in a sample. The test uses an enzyme reaction with a substrate to produce a colour change when antigen–antibody binding occurs.
Epidemiological investigation	An investigation to identify and qualify the risk factors associated with the disease. *See also* Veterinary investigation
Epidemiology	The study of disease in populations and of factors that determine its occurrence.
Exotic animal disease	A disease affecting animals (which may include humans) that does not normally occur in Australia. *See also* Emergency animal disease, Endemic animal disease

Term	Definition
Exotic fauna/feral animals	*See* Wild animals
Fomites	Inanimate objects (eg boots, clothing, equipment, instruments, vehicles, crates, packaging) that can carry an infectious disease agent and may spread the disease through mechanical transmission.
General permit	A legal document that describes the requirements for movement of an animal (or group of animals), commodity or thing, for which permission may be granted without the need for direct interaction between the person moving the animal(s), commodity or thing and a government veterinarian or inspector. The permit may be completed via a webpage or in an approved place (such as a government office or commercial premises). A printed version of the permit must accompany the movement. The permit may impose preconditions and/or restrictions on movements. *See also* Special permit
In-contact animals	Animals that have had close contact with infected animals, such as noninfected animals in the same group as infected animals.
Incubation period	The period that elapses between the introduction of the pathogen into the animal and the first clinical signs of the disease.
Index case	The first case of the disease to be diagnosed in a disease outbreak. *See also* Index property
Index property	The property on which the index case is found. *See also* Index case
Infected premises (IP)	A defined area (which may be all or part of a property) on which animals meeting the case definition are or were present, or the causative agent of the emergency animal disease is present, or there is a reasonable suspicion that either is present, and that the relevant chief veterinary officer or their delegate has declared to be an infected premises.
Local control centre (LCC)	An emergency operations centre responsible for the command and control of field operations in a defined area.
Monitoring	Routine collection of data for assessing the health status of a population or the level of contamination of a site for remediation purposes. *See also* Surveillance
Movement control	Restrictions placed on the movement of animals, people and other things to prevent the spread of disease.
National Biosecurity Committee (NBC)	A committee that was formally established under the Intergovernmental Agreement on Biosecurity (IGAB). The IGAB was signed on 13 January 2012, and signatories include all states and territories except Tasmania. The committee provides advice to the Agriculture Senior Officials Committee and the Agriculture Ministers' Forum on national biosecurity issues, and on the IGAB.
National management group (NMG)	A group established to approve (or not approve) the invoking of cost sharing under the Emergency Animal Disease Response Agreement. NMG members are the Secretary of the Australian

Term	Definition
	Government Department of Agriculture, Water and the Environment as chair, the chief executive officers of the state and territory government parties, and the president (or analogous officer) of each of the relevant industry parties.
Native wildlife	*See* Wild animals
OIE Terrestrial Code	OIE *Terrestrial animal health code.* Describes standards for safe international trade in animals and animal products. Revised annually and published on the internet at: www.oie.int/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access.
OIE Terrestrial Manual	OIE *Manual of diagnostic tests and vaccines for terrestrial animals*. Describes standards for laboratory diagnostic tests, and the production and control of biological products (principally vaccines). The current edition is published on the internet at: www.oie.int/en/what-we-do/standards/codes-and-manuals/terrestrial-manual-online-access.
Operational procedures	Detailed instructions for carrying out specific disease control activities, such as disposal, destruction, decontamination and valuation.
Outside area (OA)	The area of Australia outside the declared (control and restricted) areas.
Owner	Person responsible for a premises (includes an agent of the owner, such as a manager or other controlling officer).
Polymerase chain reaction (PCR)	A method of amplifying and analysing DNA sequences that can be used to detect the presence of viral DNA.
Premises	A tract of land including its buildings, or a separate farm or facility that is maintained by a single set of services and personnel.
Premises of relevance (POR)	A premises in a control area that contains a live susceptible animal(s) but is considered at the time of classification not to be an infected premises, suspect premises, trace premises, dangerous contact premises or dangerous contact processing facility.
Prevalence	The proportion (or percentage) of animals in a particular population affected by a particular disease (or infection or positive antibody titre) at a given point in time.
Qualifiers	
– assessed negative	Assessed negative (AN) is a qualifier that may be applied to ARPs, PORs, SPs, TPs, DCPs or DCPFs. The qualifier may be applied following surveillance, epidemiological investigation, and/or laboratory assessment/diagnostic testing and indicates that the premises is assessed as negative at the time of classification.
– sentinels on site	Sentinels on site (SN) is a qualifier that may be applied to IPs and DCPs to indicate that sentinel animals are present on the premises as part of response activities (ie before it can be assessed as an RP).
– vaccinated	The vaccinated (VN) qualifier can be applied in a number of different ways. At its most basic level, it can be used to identify

Term	Definition
	premises that contain susceptible animals that have been vaccinated against the EAD in question. However, depending on the legislation, objectives and processes within a jurisdiction, the VN qualifier may be used to track a range of criteria and parameters.
Quarantine	Legal restrictions imposed on a place or a tract of land by the serving of a notice limiting access or egress of specified animals, persons or things.
Resolved premises (RP)	An infected premises, dangerous contact premises or dangerous contact processing facility that has completed the required control measures, and is subject to the procedures and restrictions appropriate to the area in which it is located.
Restricted area (RA)	A relatively small legally declared area around infected premises and dangerous contact premises that is subject to disease controls, including intense surveillance and movement controls.
Risk enterprise	A defined livestock or related enterprise that is potentially a major source of infection for many other premises. Includes intensive piggeries, feedlots, abattoirs, knackeries, saleyards, calf scales, milk factories, tanneries, skin sheds, game meat establishments, cold stores, artificial insemination centres, veterinary laboratories and hospitals, road and rail freight depots, showgrounds, field days, weighbridges, garbage depots.
Sensitivity	The proportion of truly positive units that are correctly identified as positive by a test. *See also* Specificity
Sentinel animal	Animal of known health status that is monitored to detect the presence of a specific disease agent.
Seroconversion	The appearance in the blood serum of antibodies (as determined by a serology test) following vaccination or natural exposure to a disease agent.
Serosurveillance	Surveillance of an animal population by testing serum samples for the presence of antibodies to disease agents.
Serotype	A subgroup of microorganisms identified by the antigens carried (as determined by a serology test).
Serum neutralisation test	A serological test to detect and measure the presence of antibody in a sample. Antibody in serum is serially diluted to detect the highest dilution that neutralises a standard amount of antigen. The neutralising antibody titre is given as the reciprocal of this dilution.
Slaughter	The humane killing of an animal for meat for human consumption.
Special permit	A legal document that describes the requirements for movement of an animal (or group of animals), commodity or thing, for which the person moving the animal(s), commodity or thing must obtain prior written permission from the relevant government veterinarian or inspector. A printed version of the permit must accompany the movement. The permit may impose preconditions and/or restrictions on movements. *See also* General permit

Term	Definition
Specificity	The proportion of truly negative units that are correctly identified as negative by a test. *See also* Sensitivity
Stamping out	The strategy of eliminating infection from premises through the destruction of animals in accordance with the particular AUSVETPLAN manual, and in a manner that permits appropriate disposal of carcasses and decontamination of the site.
State coordination centre (SCC)	The emergency operations centre that directs the disease control operations to be undertaken in that state or territory.
Surveillance	A systematic program of investigation designed to establish the presence, extent or absence of a disease, or of infection or contamination with the causative organism. It includes the examination of animals for clinical signs, antibodies or the causative organism.
Susceptible animals	Animals that can be infected with a particular disease.
Suspect animal	An animal that may have been exposed to an emergency disease such that its quarantine and intensive surveillance, but not pre-emptive slaughter, is warranted. *or* An animal not known to have been exposed to a disease agent but showing clinical signs requiring differential diagnosis.
Suspect premises (SP)	Temporary classification of a premises that contains a susceptible animal(s) not known to have been exposed to the disease agent but showing clinical signs similar to the case definition, and that therefore requires investigation(s).
Swill	Also known as 'prohibited pig feed', means material of mammalian origin, or any substance that has come in contact with this material, but does not include: (i) Milk, milk products or milk by-products either of Australian provenance or legally imported for stockfeed use into Australia. (ii) Material containing flesh, bones, blood, offal or mammal carcases which is treated by an approved process.[1] (iii) A carcass or part of a domestic pig, born and raised on the property on which the pig or pigs that are administered the part are held, that is administered for therapeutic purposes in accordance with the written instructions of a veterinary practitioner. (iv) Material used under an individual and defined-period permit issued by a jurisdiction for the purposes of research or baiting. [1] In terms of (ii), approved processes are: 1. rendering in accordance with the 'Australian Standard for the Hygienic Rendering of Animal Products' 2. under jurisdictional permit, cooking processes subject to compliance verification that ensure that a core temperature

Term	Definition
	of at least 100 °C for a minimum of 30 minutes, or equivalent, has been reached. 3. treatment of cooking oil, which has been used for cooking in Australia, in accordance with the 'National Standard for Recycling of Used Cooking Fats and Oils intended for Animal Feeds' 4. under jurisdictional permit, any other nationally agreed process approved by AHC for which an acceptable risk assessment has been undertaken and that is subject to compliance verification. The national definition is a minimum standard. Some jurisdictions have additional conditions for swill feeding that pig producers in those jurisdictions must comply with, over and above the requirements of the national definition.
Swill feeding	Also known as 'feeding prohibited pig feed', includes: • feeding, or allowing or directing another person to feed, prohibited pig feed to a pig • allowing a pig to have access to prohibited pig feed • the collection and storage or possession of prohibited pig feed on a premises where one or more pigs are kept • supplying to another person prohibited pig feed that the supplier knows is for feeding to any pig. This definition was endorsed by the Agricultural Ministers' Council through AGMIN OOS 04/2014.
Trace premises (TP)	Temporary classification of a premises that contains susceptible animal(s) that tracing indicates may have been exposed to the disease agent, or contains contaminated animal products, wastes or things, and that requires investigation(s).
Tracing	The process of locating animals, persons or other items that may be implicated in the spread of disease, so that appropriate action can be taken.
Unknown status premises (UP)	A premises within a declared area where the current presence of susceptible animals and/or risk products, wastes or things is unknown.
Vaccination	Inoculation of individuals with a vaccine to provide active immunity.
Vaccine	A substance used to stimulate immunity against one or several disease-causing agents to provide protection or to reduce the effects of the disease. A vaccine is prepared from the causative agent of a disease, its products or a synthetic substitute, which is treated to act as an antigen without inducing the disease.

Term	Definition
– adjuvanted	A vaccine in which one or several disease-causing agents are combined with an adjuvant (a substance that increases the immune response).
– attenuated	A vaccine prepared from infective or 'live' microbes that are less pathogenic but retain their ability to induce protective immunity.
– gene deleted	An attenuated or inactivated vaccine in which genes for non-essential surface glycoproteins have been removed by genetic engineering. This provides a useful immunological marker for the vaccine virus compared with the wild virus.
– inactivated	A vaccine prepared from a virus that has been inactivated ('killed') by chemical or physical treatment.
– recombinant	A vaccine produced from virus that has been genetically engineered to contain only selected genes, including those causing the immunogenic effect.
Vector	A living organism (frequently an arthropod) that transmits an infectious agent from one host to another. A *biological* vector is one in which the infectious agent must develop or multiply before becoming infective to a recipient host. A *mechanical* vector is one that transmits an infectious agent from one host to another but is not essential to the life cycle of the agent.
Veterinary investigation	An investigation of the diagnosis, pathology and epidemiology of the disease. *See also* Epidemiological investigation
Viraemia	The presence of viruses in the blood.
Wild animals	
– native wildlife	Animals that are indigenous to Australia and may be susceptible to emergency animal diseases (eg bats, dingoes, marsupials).
– feral animals	Animals of domestic species that are not confined or under control (eg cats, horses, pigs).
– exotic fauna	Nondomestic animal species that are not indigenous to Australia (eg foxes).
Wool	Sheep wool.
Zero susceptible species premises (ZP)	A premises that does not contain any susceptible animals or risk products, wastes or things.
Zoning	The process of defining, implementing and maintaining a disease-free or infected area in accordance with OIE guidelines, based on geopolitical and/or physical boundaries and surveillance, to facilitate disease control and/or trade.
Zoonosis	A disease of animals that can be transmitted to humans.

Abbreviations

Abbreviation	Full title
ACDP	Australian Centre for Disease Preparedness
AN	assessed negative
APF	approved processing facility
ARP	at-risk premises
AUSVETPLAN	Australian Veterinary Emergency Plan
CA	control area
CCEAD	Consultative Committee on Emergency Animal Diseases
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CVO	chief veterinary officer
DCP	dangerous contact premises
DCPF	dangerous contact processing facility
EAD	emergency animal disease
EADRA	Emergency Animal Disease Response Agreement
EADRP	Emergency Animal Disease Response Plan
EDTA	ethylenediaminetetraacetic acid (anticoagulant for whole blood)
ELISA	enzyme-linked immunosorbent assay
GP	general permit
IETS	International Embryo Transfer Society
IP	infected premises
LCC	local control centre
NASOP	nationally agreed standard operating procedure
NMG	National Management Group
OA	outside area
OIE	World Organisation for Animal Health
PCR	polymerase chain reaction
POR	premises of relevance
RA	restricted area
RP	resolved premises
SCC	state coordination centre
SP	suspect premises

Abbreviation	Full title
SpP	special permit
TP	trace premises
UP	unknown status premises
ZP	zero susceptible species premises

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