

AUSTRALIAN VETERINARY EMERGENCY PLAN

AUSVETPLAN

1999

Enterprise Manual

Saleyards and Transport

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

Agriculture and Resource Management Council of Australia and New Zealand

This Enterprise Manual forms part of:**AUSVETPLAN Edition 2 1996**

[AUSVETPLAN Edition 1 was published in 1991]

This strategy will be reviewed regularly. Suggestions and recommendations for amendments should be forwarded to the AUSVETPLAN Coordinator (see Preface).

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PREFACE

This **Enterprise Manual** for Saleyards and Transport is a specialised part of the **Australian Veterinary Emergency Plan**, AUSVETPLAN (Edition 2.0). AUSVETPLAN is an agreed management plan and set of operational procedures that would be adopted in the event of an emergency animal disease outbreak in Australia. The procedures are briefly outlined in the **Summary Document** and details are given in the individual **Disease Strategies**. The enterprise manuals are written with specific reference to certain animal industries where a greater than normal risk of harm could be expected from an emergency disease outbreak.

This manual is directed at providing information and guidance to all people associated with the operations of Saleyards and Transport. This Manual would be used in two situations; a saleyard in the vicinity of an outbreak of an emergency disease, such as a declared restricted or control area for the disease; or when an emergency disease is detected in an animal within a saleyard.

It provides procedures and recommendations for dealing with these situations, and background information on how saleyards operate. Recommendations have been made to reduce the risk or effects that an emergency disease outbreak would have on the industry. The manual is written for two major target groups:

- Decision makers at State or national level who are unfamiliar with saleyard operations. The manual provides an overview of the saleyard operations and guidance in policy and procedures.
- Saleyard management and staff who need specific instructions on how to perform the operational tasks to exclude or eradicate the disease.

This manual is being released as a final document following full industry/government consultation and with the approval of the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ).

Detailed instructions for field implementation of the strategies are contained in the AUSVETPLAN **Operational Procedures Manuals** and **Management Manuals**. Cross-references to strategies, manuals and other AUSVETPLAN documents are expressed in the form:

Document Name, Section no.

For example, **Decontamination Manual, Section 3**.

The resource book *Exotic Diseases of Animals: A Field Guide for Australian Veterinarians* by W.A. Geering, A.J. Forman and M.J. Nunn, Australian Government Publishing Service, Canberra, 1995 (**Exotic Diseases Field Guide**) has been a source for some of the information about the aetiology, diagnosis and epidemiology of the diseases. It should be used as a field guide for veterinarians and other animal health personnel associated with emergency disease diagnosis and management in livestock enterprises.

The manuals will be revised and updated from time to time to ensure that they keep pace with the changing circumstances of the particular industry they cover. Comments and suggestions are welcome and should be addressed to:

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1 NATURE OF ENTERPRISE

Introduction

The occurrence of an emergency disease in a saleyard may have a devastating impact because of the possibility of rapidly disseminating the disease to many properties over a wide area. These guidelines aim to assist the management of an emergency disease occurrence as it impacts on saleyards and associated livestock transport. The guidelines focus on highly contagious emergency diseases that would cause the greatest disruption to the industry.

1.1 Description of enterprise

Saleyards are defined as public or privately owned venues where livestock are assembled for sale and purchase. The type of sales considered 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 and the value of animals often exceeds normal commercial values; and
- bobby calf selling/assembly points.

Infrequent sales (eg those held once or twice per year), agricultural shows and field days are not addressed specifically in this manual, however the underlying principles are similar. The species of stock considered are principally cattle and sheep with some reference to pigs and goats. Other species that are assembled for sale occasionally include horses and camelids - again the underlying principles apply. Poultry are not considered in this manual.

Transport includes road and rail (where applicable) as they relate to the movement of stock to and from saleyards.

1.1.1 Existing codes of practice

Existing codes of practice that may be involved in a disease response are those of animal welfare and the environment. In general, the codes of practice will affect the management of a saleyard in the presence of an emergency disease in a similar way to that of an infected property.

The retention of stock in a saleyard may precipitate welfare problems such as the feeding of bobby calves or the disposal of effluent in large saleyards. In addition, some States and/or saleyards have codes of practice in relation to general management of saleyards and specifically liveweight selling.

Most impacts of general codes relating to saleyard management will be positive, eg cleaning and maintenance requirements. However, requirements regarding the length of time stock are assembled prior to sale may increase risk of spread of disease. These may require modification in the event of continuance of sales during an outbreak of disease.

The saleyards industry has recently established a voluntary National Saleyards Quality Assurance (NSQA) Program that is being implemented by individual saleyards operators.

The NSQA 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 addresses meat quality and residues.

The Australian Livestock Transporters Association (ALTA) is introducing a voluntary quality system program known as Truckcare for the livestock transport industry. It documents policies and procedures, based on model Codes of Practice, to be followed on a range of issues including livestock handling, and inspection of stock at loading, in transit and during unloading.

Model Codes of Practice have been developed within the ARMCANZ framework to enable the States to develop codes of practice to meet their individual needs. The general codes of practice and their influence in the event of an emergency disease are outlined in Table 1. Appendix 1 provides more information on Codes/legislation in each State/Territory.

Table 1 Current codes of practice with implications for the control of emergency diseases in saleyards

Code	Influence
Welfare <i>Model Code of Practice for Welfare of Animals in Saleyards</i>	Provision of feed, water and shelter. Care for young, weak/ill injured stock.
<i>Model Codes of Practice (various) for Transport of Animals</i> <i>Model Code of Practice for Road Transport of Livestock</i> <i>Model Code of Practice for Rail Transport of Livestock</i>	as above Times in transit/rest periods, segregation of species/classes of stock.
<i>Australian Livestock Transporters Association Code</i>	based on Model Codes
Saleyards General	Industry Code incorporated into the NSQA. Some States have codes eg NSW, Vic.
Environment	No national code, but issue addressed in the NSQA. Generally the responsibility of State Environmental Protection agencies and local authorities.

1.1.2 Legislation

Legislation for the purpose of controlling emergency animal disease has been enacted at both the Commonwealth and State levels. The federal legislation is primarily concerned with preventing the introduction and establishment of disease or of things that may carry disease. Legislation exists in all States/Territories aimed at the control and eradication of disease in animals, and establishing controls over the whole field of animal movement, treatment, decontamination, slaughter and compensation. Wide powers are conferred on government inspectors; including the power to enter premises, to order stock musters, to test animals and order the destruction of animals and products that are suspected of being infected or contaminated.

Table 2 Current legislation with implications for the control of emergency diseases in a saleyard¹

Legislation	Influence
<i>Stock Diseases Act and Regulations</i>	<ul style="list-style-type: none"> * Provides powers for Inspectors of Stock eg to enter premises to quarantine and destroy diseased animals. * Provides for compensation. * Establishes the rights of owners.
<i>Exotic Disease Act and Regulations (based on Kaney Principles)</i>	<ul style="list-style-type: none"> * Provides Powers for Inspectors of Stock eg 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. * Provides for compensation. * Provides for rights of owners.
<i>Animal Welfare Act and Regulations</i>	<ul style="list-style-type: none"> * Provision of food, water, shelter. * Care of sick, weak or injured animals.
<i>Environmental Protection Act and Regulations</i>	<ul style="list-style-type: none"> * Protection of environment - odour, burial, ground water.
<i>Transport of Livestock Acts and Regulations</i>	<ul style="list-style-type: none"> * Times travelled, loading densities.

1.2 Emergency diseases of concern

This manual focuses on foot-and-mouth disease (FMD) however the principles apply to all emergency diseases with adjustments taking into account the epidemiology, economic impact and public health aspect of a particular disease.

1.2.1 Diseases primarily affecting cattle, sheep, goats and pigs

African swine fever

A highly contagious, generalised virus disease of pigs. 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.

Aujeszky's disease

Also known as pseudorabies, this disease is caused by a herpesvirus that infects the nervous system and other organs such as the respiratory tract in virtually all mammals except humans and the tailless apes. It is primarily associated with swine, which may remain latently infected following clinical recovery.

¹The acts and regulations listed are typical of State/Territory legislation that exists although the titles will vary between the various jurisdictions (see appendix 1).

Bluetongue

A viral disease of ruminants transmitted only by specific species of biting midges (*Culicoides* spp). Sheep are the most severely infected, the disease being characterised by inflammation of the mucous membranes, widespread haemorrhages and oedema. Naturally occurring disease has not been seen in Australia, although some serotypes of the virus, some pathogenic, have been detected in northern and eastern Australia.

Bovine spongiform encephalopathy (BSE)

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.

Classical swine fever (hog cholera)

A highly contagious disease capable of spreading rapidly in susceptible pig populations. In the acute form, the disease is characterised by fever, severe depression, multiple haemorrhages, and rapid deaths. Strains of the virus of lower virulence cause subacute and chronic forms of the disease that include complications of pneumonia and diarrhoea.

Foot-and-mouth disease

An acute, highly contagious viral infection of domestic and wild cloven-hoofed animals. It is characterised by fever and vesicles in the mouth, nose, feet and teats. Serious production losses can occur, but deaths are unlikely except among young animals.

Japanese encephalitis

Is a mosquito-borne viral disease of humans and animals and occurs throughout much of Asia causing encephalitis in humans in some cases. Adult pigs normally show no clinical signs but pregnant sows may abort or produce mummified foetuses, stillborn or weak piglets. In horses the clinical signs may vary from a mild transient fever to high fever, blindness, collapse and deaths ranging from 5% to as high as 30-40%.

The virus does not persist outside of infected animals and mosquitos and is not a problem for the production of pig and game pig meat.

Lumpy skin disease

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—capripox that causes sheep and goat pox.

Peste des petits ruminants (PPR)

PPR in sheep and goats resembles rinderpest of cattle and is caused by a virus closely related to the virus of rinderpest. It is characterised by fever, enteritis, high morbidity and mortality.

Rabies

An almost invariably fatal viral encephalitis affecting all warm-blooded animals. It has a long and variable incubation and is transmitted by the bite of a rabid animal. The main reservoir hosts include members of the Canidae (dogs, foxes).

Rift Valley fever

This is a mosquito-borne disease of cattle, sheep, goats and humans, characterised by high rates of abortions and high rates of mortalities in young animals. Severe disease can occur in humans requiring special safety precautions.

Rinderpest

An acute highly contagious disease principally of cattle ('cattle plague') characterised by high fever, nasal and ocular discharges, laboured breathing, severe, often bloody diarrhoea and death. The virus is related to measles, canine distemper, and peste des petits ruminants. The virus is not stable in the environment.

Scrapie

Scrapie occurs in sheep and goats. Infection is usually passed from ewe to lamb and can occur between unrelated animals, especially when lambing occurs in confined areas. Scrapie has a prolonged incubation from 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 temperature ranges from 16–30°C.

Sheep pox and goat pox

Highly contagious skin diseases of small ruminants, characterised by fever, excess salivation, nasal and eye discharges, and pustules on exposed body surfaces, often with a high mortality rate. The virus is very resistant to inactivation in the environment, but the degree of host specificity does vary.

Swine vesicular disease

Swine vesicular disease is caused by an enterovirus closely related to the human Coxsackievirus B5. It is characterised by fever and lameness due to vesicles and erosions on the feet. It is clinically indistinguishable from foot-and-mouth disease.

Transmissible gastroenteritis

An enteric virus disease of pigs, caused by a coronavirus that results in rapid dehydration, profuse diarrhoea and rapid death in piglets under three weeks of age.

Vesicular exanthema

An acute disease characterised by vesicles on the snout, in the mouth and on the feet. The clinical disease is indistinguishable from foot-and-mouth disease. 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 principally a disease of cattle, horses, and pigs. It can cause signs indistinguishable from foot-and-mouth disease, except horses can be infected. The disease has only been seen in North, Central and South America. The epidemiology of the disease is still unclear, but transmission cycles between insects and small wild ruminants is known to occur.

1.2.2 Potential occupational health associations

While most emergency diseases of animals only affect animals a few diseases can infect humans with varying consequences. Table 3 lists these diseases, their effect on people and the influence this will have on how a disease outbreak in a saleyard is handled.

Table 3 Emergency diseases that affect humans

Disease	Effect	Influence on Handling Disease in a Saleyard
Japanese Encephalitis	can cause encephalitis	mosquito-borne disease, mainly in pigs and horses, insect protection
Rabies	lethal	treat all suspect cases with great care to avoid being bitten or infective saliva contacting eyes, cuts or abrasions
Rift Valley Fever	causes an influenza-like disease with occasionally more serious complications including death	avoid exposure to blood and discharges
Screw-worm fly	myiasis – can effect any warm blooded animal	not specifically related to saleyard
Sheep and goat pox	skin lesions - only isolated incidents; people are generally considered resistant	personal hygiene
Vesicular Stomatitis	influenza like	personal hygiene

1.2.3 AUSVETPLAN strategy and OIE requirements for each disease

The Office International des Epizooties (OIE) is the world organisation for animal health. The OIE, established in 1924 in order to promote world animal health, provides guidelines and standards for health regulations in the international trade of animals and animal products. Diseases that spread rapidly, have particularly serious socioeconomic or public health consequences and are of major importance in international trade, have been designated by OIE as List A diseases. List B diseases are similar to List A, but are considered less invasive across political borders, and to be ‘significant’ diseases only for international trade considerations. The OIE International Animal Health Code for each disease is shown in the appropriate **Disease Strategy, Appendix 3**.

Table 4 provides a concise summary of the proposed strategy in Australia if there is an outbreak of one of the emergency diseases covered by AUSVETPLAN. More details are provided in the individual **Disease Strategies**. An important factor to consider when deciding the fate of diseased/suspect livestock is OIE and trading partner requirements in regard to meat and meat products. Refer to **Meat Processing Manual, Table 2**. As trading partner requirements may be more conservative than guidelines, any decision to salvage slaughter potentially infected livestock should be taken after thorough consideration of the issues. Refer to Section 4.4 of this manual for expansion of some of the considerations.

In practice immediate slaughter of all animals in saleyards is likely to occur, unless the disease outbreak has been going some time and public and political attitudes require reconsideration of this strategy.

Some of the emergency diseases are covered by a cost-sharing agreement whereby the Commonwealth, States, and Territories share the eradication and compensation costs (see the AUSVETPLAN **Summary Document, Appendix 3**).

Table 4 OIE classification, cost-sharing agreement and eradication strategies for the AUSVETPLAN diseases transmitted by animals, meat, or by-products.

DISEASE	OIE	Incubation period (days)	CSA	ERADICATION STRATEGY*						
				S	L	C	D	I	V	H
African swine fever	A	40	✓	S			D			
Aujeszky's disease	B	7*			L		D		(V)	
Bluetongue	A	40	✓					I	V	H
Bovine spongiform encephalopathy	B	months				C				
Classical swine fever	A	40	✓	S			D		(V)	
Foot-and-mouth disease	A	14	✓	S			D		(V)	
Japanese encephalitis	B								(V)	
Lumpy skin disease	A	28		S			D	I	(V)	
Peste des petits ruminants	A	21		S			D			
Rabies	B	months	✓			C			V	
Rift Valley fever	A	30						I	V	
Rinderpest	A	21	✓	S			D			
Scrapie	B	years				C				
Screw-worm fly	B		✓					I		H
Sheep and goat pox	A	21		S			D	I	(V)	
Swine vesicular disease	A	28	✓	S			D			
Transmissible gastroenteritis	B	40			L		D		(V)	
Vesicular exanthema			✓	S			D			
Vesicular stomatitis	A	21	✓		L		D	I		H

* Quarantine and movement controls are part of all the eradication procedures.

KEY:

- OIE List A or List B disease
- CSA Cost-sharing agreement
- S Slaughter infected and at risk animals to remove the major source of the virus
- L Eradication program including limited slaughter according to circumstances
- C Slaughter of clinically affected or dangerously exposed animals
- D Decontamination essential to eliminate the presence of the virus on infected premises
- I Insect vector control
- V Vaccination of susceptible animals to prevent the disease
- (V) Vaccination may be considered
- H Husbandry, including treatment of affected animals that will assist the eradication program
- * OIE gives no maximum incubation period for Aujeszky's disease

1.3 Animal species and/or product entering saleyards

Livestock — The species considered in this document are mainly cattle, sheep, goats and pigs.

Foodstuffs — Generally in the form of hay.

Generally movement of livestock through the saleyard system occurs rapidly both before and after the sale.

1.4 Outputs/risk of spread from saleyards

1.4.1 Summary

There is considerable opportunity for the spread of disease within and from saleyards. Live animals, people, vehicles, vectors, wind, fomites and effluent are all potential means of spread the relative importance of each being dependent on the nature of the disease involved, the source of infection, number of animals affected, degree of contamination of saleyards, vehicles, people and things. Given the potentially very large number of opportunities for disease spread, it is vital that the degree of risk for each animal, person or thing be assessed and control activities prioritised.

The main infectious outputs from saleyards will be livestock and their excretions such as manure and urine, contaminated livestock transports, people and clothing. Saleyards are a high risk enterprise because infected livestock passing through them may rapidly disseminate the disease to a large number of properties over a wide geographical area. This risk applies to current and future sales as many viruses persist for a considerable time in the environment. *The main means of spread will be the direct contact between infected and susceptible stock in the saleyard and the movement of those stock incubating the disease but not yet showing any clinical signs of illness.* Other means of spread will include indirect contact between infective and susceptible animals via:

- transports carrying infected livestock;
- people who have had contact with infected stock;
- other vehicles, people, effluent and insects (in some cases); and
- 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/at risk stock; and
- disinfection of contaminated areas and things.

While these tools can be applied very successfully with little knowledge of the particular disease of concern, more effective and targeted use can be made if there is knowledge of where the disease came from, how the disease spreads and where it may have gone.

1.4.2 General factors to consider in assessing risk of spread

Livestock

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 problems than fat sales where most livestock go to an abattoir for slaughter.

People

People may spread some diseases – the risk of doing so depends on their degree of exposure to the disease and the likelihood of passing it on – ie, the time interval to next animal contact and degree of animal contact.

People may be divided into various risk categories:

Close contact/high risk	agents, livestock handlers, livestock carriers, veterinarians
Moderate contact/moderate risk	farmers (other than owner of infected stock), stock buyers
Low contact/low risk	general public, canteen staff

Vehicles

Vehicles may spread some diseases – risk of doing so depends on the degree of exposure to the disease, the disease agent, and likelihood of passing it on, ie the time interval to next animal contact and the degree of animal contact. Vehicles may be divided into various 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 may carry stock feed and/or be driven into paddocks/stockyard stock agents and yardmen's vehicles should usually be included in this category
Low contact/low risk	vehicles used by general public, canteen staff

Effluent

Saleyard and truck washing facility effluent may contain infectious material. However, the material is likely to be greatly diluted and unless susceptible species come in direct contact with effluent, or aerosols are produced during its production or disposal, the risk of transmitting disease via effluent is low.

Windborne spread

Windborne (aerosol) spread from saleyards may be a considerable risk, especially in the case of FMD if cool gentle breeze and high-humidity conditions prevail. Aerosol spread may be most important in spreading disease within the saleyard complex. The proximity of susceptible stock to saleyards will be an important factor in risk assessment.

Figure 1 provides possible contacts and means of spread for FMD in a saleyard. It can be used as a guide to identifying key contacts and risks and may be used in conjunction with Table 5 and Table 6. A similar process would need to be undertaken for other diseases in order to evaluate risks. In assessing the risk of spread, other factors to consider include:

- the area from which stock and people have been assembled and will be dispersed to;
- the prevailing weather conditions;

- the potential contact time (ie the time that infected and other stock are held in yards where transmission of infection could be facilitated); and
- the degree of direct and indirect contact between infectious and susceptible animals in common ramps, laneways, scales and yards.

Figure 1 Possible contacts and spread of FMD from an infected animal in a saleyard

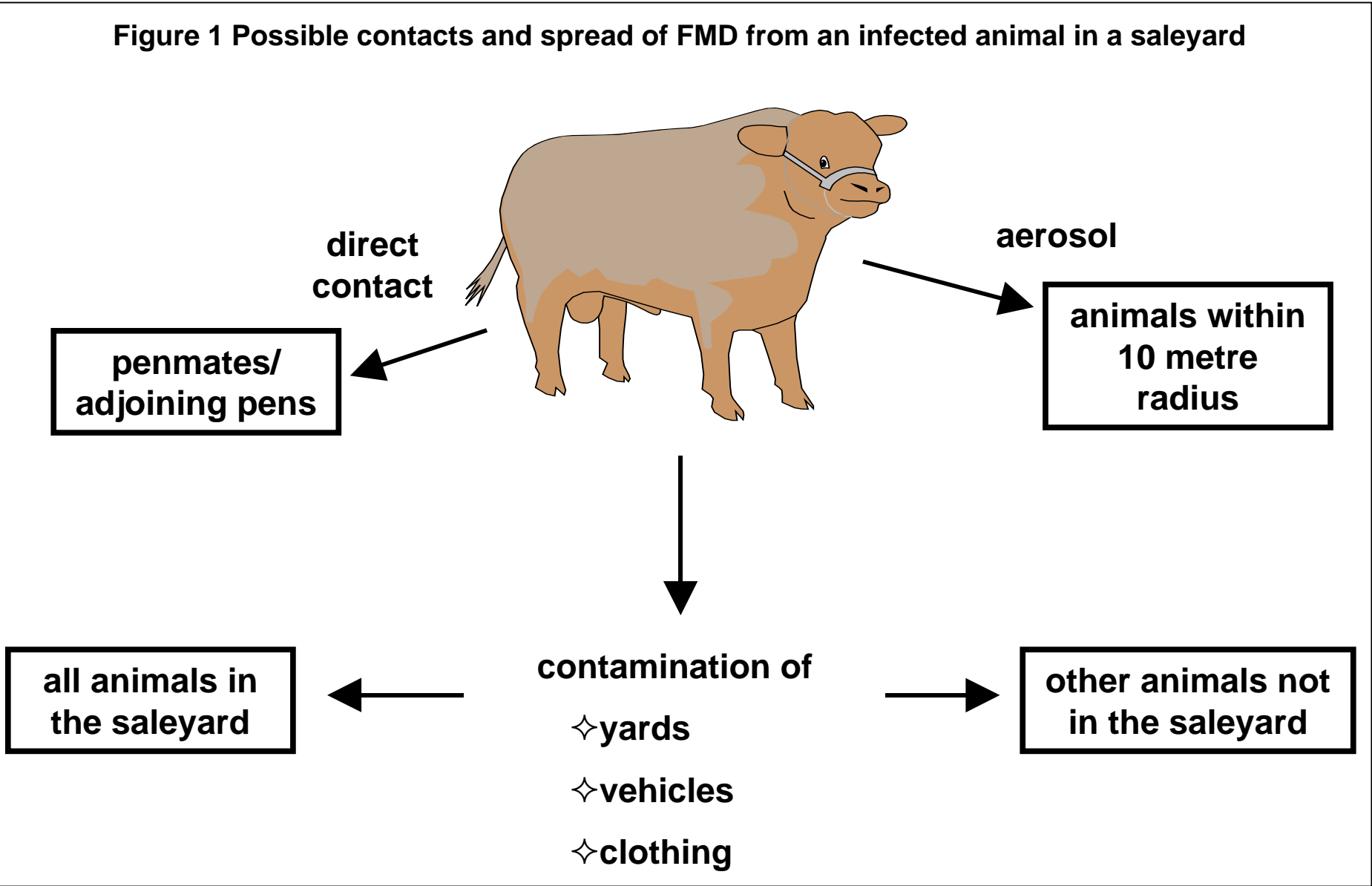


Table 5 Risk of spread of major emergency diseases

			LEVEL OF IMPORTANCE IN CONTROL				
Disease	Species	Insect Vector	Live Animal Contact	Aerosol	Mechanical	Personnel	Effluent
African swine fever	pigs	tick	high	short distance	high	high	high
Aujeszky's disease	pigs cattle sheep goats dogs cats	nil	high low low low low low	short distance	mod	mod	mod
Bluetongue	sheep goats cattle buffalo deer	Culicoides	nil	nil	nil	nil	nil
Bovine spongiform encephalopathy	cattle	nil	nil	nil	nil	nil	nil
Capripox	sheep goats	Flies, mosquitoes, culicoides (mechanical)	high	short distance	high	mod	mod
Classical swine fever	pigs	nil	high	short distance	high	high	high
Foot-and-mouth disease	pigs cattle sheep goats buffalo deer	nil	high	high, possibly over long distances	high	high	mod

...cont'd

Table 5 summarises information relevant to the risk of spread of the diseases under consideration. This information can be used in conjunction with Figure 1 and Table 6 to prioritise activities.

Table 5 Risk of spread of major emergency diseases

Disease	Species	Insect Vector	LEVEL OF IMPORTANCE IN CONTROL				Effluent
			Live Animal Contact	Aerosol	Mechanical	Personnel	
Japanese encephalitis	horses	mosquitos	nil	nil	nil	nil	nil
Lumpy skin disease	pigs cattle	biting flies mosquitoes	mod	nil	low	low	low
Peste des petits ruminants	sheep goats	nil	high	short distance	low	low	low
Rabies	mammals	nil	high	low	nil	nil	nil
Rift Valley fever	sheep goats cattle buffalo camels humans	mosquitoes	low	low high	low	low	low
Rinderpest	cattle buffalo sheep goats pigs	nil	high	short distance	mod	low	low
Scrapie	sheep goats	nil	mod	low		low	nil

...cont'd

Table 5 Risk of spread of major emergency diseases

			LEVEL OF IMPORTANCE IN CONTROL					
Disease	Species	Insect Vector	Live Animal Contact	Aerosol	Mechanical	Personnel	Effluent	
Screw worm fly	Mammals	nil	high	nil	nil	nil	nil	
Swine vesicular disease	pigs	nil	high	low	mod	mod	high	
Transmissible gastroenteritis	pigs	nil	high	in young pigs	mod	mod	low	
Vesicular exanthema	pigs	nil	high	low	mod	low		
Vesicular stomatitis	cattle horses pigs	biting flies mosquitoes Culicoides		nil	low	low	low	

Table 6 provides a guide to how long FMD virus may persist under a range of conditions and provides information on which livestock products and wastes have the greatest chance of carrying infection for prolonged periods, but does not provide information on the probability of infection following contact with various secretions.

It does not automatically follow that because a virus persists and is present in a product that infection can necessarily result when a susceptible animal comes into contact with the infective material. In general, contact with a considerable number of virus particles is required to initiate infection in susceptible animals. The actual number of virus particles needed to initiate infection being strongly influenced by the route of infection.

Table 6 Survival of FMD virus in secretions/excretions/products

Prepared from information collated by Morgan (1993).

Secretion/Excretion/Product	Survival Time Under Optimal Conditions (days)
Faeces - in hay	200
- dry in pens	14
Blood - on gumboots	100
- dry on bricks/wood	2-3
Saliva	140
Urine	30-40
Milk	7
Man - upper respiratory tract	1

2 RISK REDUCTION AND CONTINGENCY PLANNING

Contingency planning is necessary for exotic diseases but also has spin-off benefits in respect of unexpected endemic disease losses. Each saleyard should make plans that may be useful in the event of a disease emergency.

2.1 Internal quarantine

Internal quarantine facilities should be planned in advance and maintained as far as possible 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 sick livestock. Unnecessary mixing of animal groups and adding introductions to other pens should be avoided. Internal quarantine areas should:

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

2.2 Veterinary services/training of staff

Veterinary services to the saleyard should be planned with a view to emergency disease preparedness. If a regular veterinarian is employed, he/she should be familiarised with all relevant aspects of animal handling and saleyard management practices so as to enable more informed decisions to be made if an emergency disease is suspected. The veterinarian should be aware of emergency diseases and have attended postgraduate training. The veterinarian should be involved in basic training of saleyard staff in what to do and not to do in order to minimise the spread of disease. Further information on training materials, including videos and slides can be found in the **Summary Document, Appendix 2**.

2.3 Laboratory specimen collection and dispatch

Specimens should be taken with basic precautions to prevent contamination. Proper techniques for collection, packaging and dispatch should always be observed. Where specimens are taken by lay staff, proper procedures should be the subject of training by the saleyard veterinarian.

2.4 Disposal sites for carcasses

A single postmortem site should be selected for disposal of carcasses although it may be necessary to prepare a new site from time to time. The site should be secured so as to prevent any chance of 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 watertable characteristics in the immediate vicinity of the saleyard. The dimensions needed are approximately as described in Section 4.3.2 below.

Note: 1 km of trenching will be needed per 5000 animals (this need not be one continuous trench).

2.5 Record keeping

Proper routine recording of the movements in and out of animals, feed ingredients, equipment and the like, may be of invaluable use in investigating a suspected disease incursion. In the event of a disease outbreak adequate records of inputs and outputs may well enable an earlier return to normal operations than would be possible in their absence. Such records should include:

- the source or destination;
- the nature of the article;
- the purpose to which it is put; and
- other details as appropriate.

The records should be designed so that they can be easily and speedily searched for relevant information. The type of records required are described in Section 3.4.1.

2.7 Water supply

In the event of decontamination of vehicles and equipment being necessary, extra water may be required for the purpose (see the **Decontamination Manual, Section 4.3**). A supply of water adequate only for normal operations of the saleyard is not sufficient. The supply must be capable of giving significantly more than normal requirements if needed.

2.8 Media and public relations

The **Public Relations Manual** contains detailed information on media and public relations activities in the event of an emergency disease outbreak when a saleyard would inevitably be the target of intense media interest. Information fact sheets for each of the diseases covered by AUSVETPLAN are contained in the **Summary Document**.

A check list for preparation before an outbreak is provided in Appendix 6.

3 RESPONSE PLANS IN A DECLARED AREA

3.1 Introduction

This section addresses the situation where a saleyard, although not having any clinical or suspected cases of an emergency disease itself, is within either a restricted or a control area due to an outbreak of emergency disease within the area.

3.1.1 Declared areas

The term *declared area* is used to cover both *restricted* and *control areas*. These are defined below but it should be noted that the definitions may vary in particular situations or that such areas may not necessarily be declared for specific diseases.

A *restricted area* (RA) is a relatively small area around an infected premises that is subject to intense surveillance and movement controls. Movement out of the area will in general be prohibited, while movement into the restricted area would only be by permit. Multiple *restricted areas* may exist within one *control area* (CA). Guidelines for establishing restricted areas are provided in Appendix 1 of each disease control strategy and the OIE animal health code.

A CA will be a buffer between the RA and areas free of disease, where restrictions will reduce the chance of the disease spreading further afield. The control area should reduce in size as confidence about the extent of the outbreak becomes clearer (generally to a minimum 10 km radius for an intensive livestock-raising region and 50 km for an extensive livestock-raising region). In principle, animals and specified product will only be able to be moved out of the control area into the free area by permit.

3.1.2 Local disease control centre

In the event of an outbreak of emergency disease, each State or Territory is responsible for its own disease control activities under the direction of the State/Territory CVO. A local disease control centre (LDCC) will be established and will be responsible for all activities within the declared area, including disease investigation, collection of specimens, quarantine of properties, valuation, slaughtering and disposal of livestock, and decontamination of properties.

Saleyard managers should be in contact with the LDCC controller and all staff must be made fully aware of LDCC requirements and of all arrangements made to control and eradicate the disease.

3.2 Can the enterprise continue to operate in a declared area?

3.2.1 Restricted area

Sales and other public congregations of stock would remain prohibited in a RA. Some stock and product movements would be allowed under permit after assessment of risk and the necessity of movement.

3.2.2 Control area

Following assessments, movement of stock and perhaps sales, would be permitted in a CA. It may be three weeks or more before resumption of stock movements is allowed, possibly after the incubation period has elapsed. Given the availability of direct selling systems, such as CALM, there may be little justification for congregation of stock in saleyards in CAs. Should an emergency disease outbreak continue for some time, pressure may mount to allow sales in CAs. Factors that may be taken into consideration in the decision to approve or not approve sales in a CA are summarised below.

Benefits of the sales

Auction sales remain 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; and
- provide a substantial benefit to local communities particularly in terms of increased business activity in local communities associated with sales.

Availability of alternatives

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

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

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, eg FMD. In the case of diseases such as swine fever, which only affects one species, it may be possible to continue sales for other species, providing there is no risk of spread via cross contamination eg via livestock transports.

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

In the case of other diseases, such as BSE, which is spread via animal product, there is little benefit in preventing sales. However good records must be maintained in order to trace stock movements if necessary. More information on the significance of saleyards in the spread of disease is available in Section 1.4 of this manual and the relevant AUSVETPLAN **Disease 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 stock numbers involved, duration and other factors. Table 7 attempts to identify these risks and provides a guide to their relative importance. By using such an approach, it may be possible to allow resumption of a show, sale or field day under permit with conditions limiting species eligible

to attend, the area from which animals are drawn, the duration of event and the proximity to high risk enterprises.

Table 7 A comparison of risk factors for saleyards, shows/fairs and field days

Risk Factor	Description of Risk Factor		
	Saleyard	Show/Fair	Field Day
Animals			
Number	moderate-high	small-high	moderate-low
Range of Species	low	low-high	low
Time assembled	0-2 days	0-14 days	0-3 days
Ownership	large and changing	few-large	few
People			
Number of High Risk	high	moderate	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			
Livestock	moderate-high	low-moderate	low-moderate
Other	moderate-high	moderate-high	moderate-high
Proximity To Other Livestock	possibly close	generally distant	possibly close

3.3 Minimisation of risks associated with operation

3.3.1 Livestock movements

Certain movements of livestock may be allowed in both RAs and CAs under permits that impose conditions to minimise risk of disease spread. Stock movements that may be permitted in FMD outbreaks are illustrated in Figure 2 (end of this section). Figure 2 highlights the important principle that stock movements are generally allowed in toward an area of lower disease status but not out from infected or suspect areas to the clean area.

Note: A disease outbreak may involve several discrete RAs within one or more CAs. For further details refer to the relevant AUSVETPLAN **Disease Strategy, Appendix 1**.

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

- Sales not to be conducted more frequently than once per week in any premises or part premises.
- Stock must enter and leave on an all-in-all-out basis and time assembled limited to 12 hours before and after sale.
- Mingling and direct contact of stock from different properties to be minimised.

- Saleyards not to be used by other susceptible stock eg not to be used as a holding area for in-transit stock.
- Saleyard management will maintain an accurate record of all movements on and off to be verified against movement permits.
- Sick and dead animals are to be examined by a veterinarian to determine diagnosis.
- Carcasses to be burned, rendered.
- Access to an adequate supply of disinfectant for the disease in question.

3.3.2 Work animals

Dogs or horses belonging to stockmen will have to be dealt with on a case by case basis depending upon the risk they pose through contact with stock outside the premises. It may be necessary in some cases to provide kennelling or stabling on site.

3.3.3 Stock feed

Stock feed 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 that necessary for immediate use. Long term storage of feed at the saleyard should not be permitted.

3.3.4 Discharges

Effluent and storm water emanating from saleyards will be disposed of in such a way as to prevent direct access by susceptible species. Discharge into municipal sewerage plants is low risk, due in part to dilution of potentially infectious material, and the considerable length of time occurring before the release of fluid waste into the broader environment. Effluent disposal systems, which involve direct flooding or spraying of effluent on to pastures that are grazed by susceptible stock, are not acceptable. Manure will be scraped from pens and yards, stacked, disinfected or buried.

3.3.5 Vehicles

- Livestock vehicles will be maintained in a clean condition and only carry stock from one property at any one time. Vehicles are to be thoroughly cleaned between loads.
- A vehicle log book recording details of stock pickups/deliveries will be maintained.
- Access and parking are to be controlled.
- Non-livestock transport vehicles should be parked separately from livestock transports, to minimise risk of contamination.

3.3.6 Equipment and materials held at saleyard

All equipment and materials likely to come into contact with livestock, or be involved in the transfer of infection between animals, are to be maintained in a clean and functional state.

3.3.7 Personnel

Transport drivers, livestock agents, livestock handlers and veterinarians are to maintain a high degree of hygiene, including disinfecting footwear on and off properties/saleyards and immediate replacement of soiled clothing.

General public, buyers, other farmers, canteen and administration staff are not to enter livestock yards or laneways and may be required to disinfect footwear into and out of

saleyards. People who own or care for susceptible species should thoroughly wash after handling species on a farm, or in a saleyard, and prior to handling their own livestock upon return from a sale. Attendance at sale by general public should be discouraged.

3.3.8 Vermin and feral animals

Vermin and feral animals are to be controlled. Feral and straying animals of susceptible species must be prevented from entering the saleyards. Depending on the disease and the level of confidence that the disease is contained, differing restrictions may apply in relation to premises.

3.3.9 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 prior to sale and cleaned 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 Draft Code of Practice for Saleyards in Victoria (Anon, 1994).

3.4 Other precautions

3.4.1 Admission of infected or potentially infected animals or products to saleyards

The entry of infected and potentially infected animals/products into saleyards is prohibited. The risk of inadvertently introducing infected animals/products is minimised by procedures outlined in Section 2.

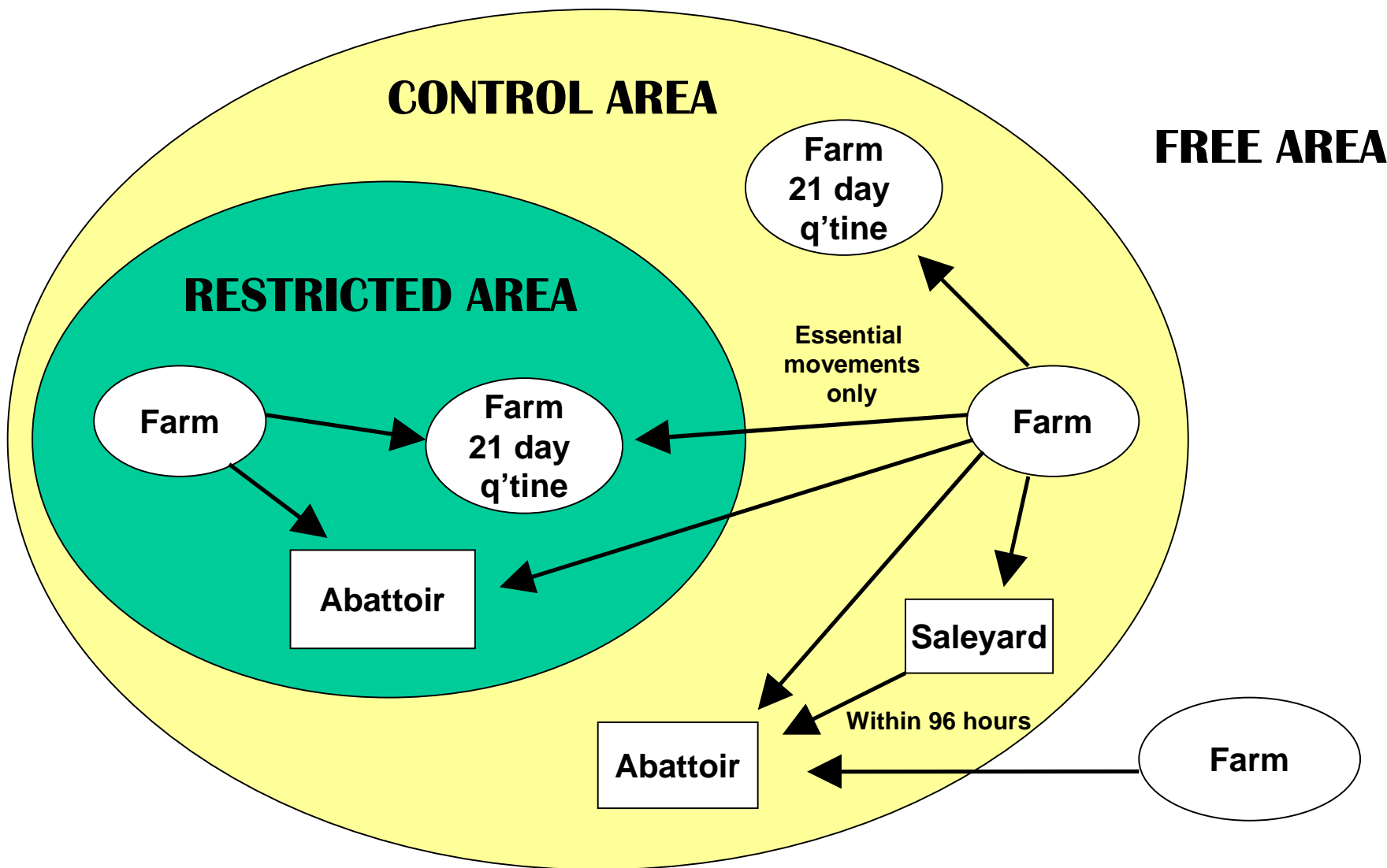
3.4.2 Situation where a saleyard is implicated in the spread of infection after a sale is completed

Should tracing of stock or vehicle movements indicate that infected or potentially infected stock have passed through a saleyard some time previously then action would need to be taken to:

- Determine risk of spread in order to prioritise tracings; and
- Assess degree of potential residual contamination and implement further decontamination if necessary.

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

Figure 2 Stock movements that may be allowed under permit in the event of an outbreak of FMD



4 RESPONSE PLANS ON AN INFECTED OR DANGEROUS CONTACT PREMISES

4.1 Introduction

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

Declared areas proclaimed in the event of an outbreak of an emergency disease by the State/Territory CVO under the relevant State diseases or emergency diseases legislation, are described below.

Infected premises (IP): an area (which may be all or part of a property) in which a disease emergency exists, is believed to exist, or in which the infective agent of that emergency disease exists or is believed to exist.

Dangerous contact premises (DCP): premises containing animals showing no clinical signs of disease but which, by reason of its probable exposure to disease, will be subjected to disease control measures.

Suspect premises (SP): an area containing animals that might have been exposed to an emergency disease through possible contact with infected animals or facilities, people, equipment, semen or embryos, and currently show no symptoms; OR where the disease symptoms are evident, but the diagnosis is as yet to be confirmed.

The declaration by the CVO of an IP, DCP or SP is determined by the AUSVETPLAN **Disease Strategies** in order to minimise the spread of disease.

Saleyards could be involved in an emergency disease outbreak under three different circumstances:

- the disease is suspected first during a sale at a saleyard; or
- trace-back to a saleyard where stock are currently held; or
- trace-back to the saleyard when there are no animals at the yard.

4.1.1 Priorities when investigating an IP or DCP

Minimise the risk of disease spread within and beyond the saleyard and from the source of suspect stock and contacts. The aim should be to achieve these objectives with least possible disruptions to normal saleyard activity. Key saleyard staff should be consulted and kept informed.

To aid in risk assessment and the subsequent decision making process, a map/plan of the saleyard should be obtained. This should include details of pens, laneways, entry points and drainage. The saleyard should be secured as soon as possible by controlling entry and exit points. All present at the saleyards should be informed of events and cooperation sought. Utilise existing public address system if available, otherwise consider setting up one.

4.1.2 Handling animals and animal products

- Affected suspect animals would be examined by animal health staff and quarantined, preferably in an area well isolated from other stock, pending diagnosis.

- A diagnostic team may be called in and specimens may need to be submitted to a laboratory.
- Depending on the nature and extent of the disease suspected, initial risk assessment could commence. See Section 1.4.2 for help on prioritising most likely mechanisms for spread, and tracing requirements.
- Ownership and recent history of the suspect animals and other high-risk contacts should be established.
- A list of all vendors at the sale should be obtained and the location of their stock marked on the plan of the saleyard.
- Depending on anticipated delay until a definitive diagnosis is received, arrangements should be made to provide feed, water and shelter as necessary. See Appendix 3.
- Depending on the circumstances, the sale may be allowed to proceed but movement of people and stock onto and off the premises may be prevented.
- Control of entry into and exit from saleyards should be initiated to minimise the risk of infection being carried from the saleyard.
- List purchasers and intended fate of animals.

4.2 Can the enterprise continue to operate if declared an infected or dangerous contact premises?

4.2.1 Issues when deciding whether or not to suspend or stop a sale

- The disease suspected and the mechanisms and risks of it spreading to other animals.
- The nature of sale eg will all stock to be sold for slaughter, or will they be dispersed to other premises?

The saleyard management and key staff should be involved in the decision-making process, including consideration of legal procedures and implications.

4.2.2 Issues to consider if sale is to be stopped

- 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 ie can sale recommence? Will buyers be willing and available?
- The choice of the person to make a public announcement regarding the suspected disease outbreak. Considerations include local credibility and authority. Options include saleyard manager, chairman of selling agents' association, stock inspector or government veterinarian.
- The announcement to be made from a written statement prepared by the Chief Veterinary Officer.

4.3 Elimination of the agent

4.3.1 Animals

In the event of an outbreak of emergency disease, the saleyard would be quarantined. Clinical cases, animals from the same property of origin, and animals that have had close contact in the saleyard or during transport to the sale would be valued and destroyed as soon as possible. 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**,

Section 3. The operational aspects of destruction of stock in a saleyard and the disposal of carcasses are addressed in a general sense in the **Destruction and Disposal Manuals**.

Some aspects of particular relevance to saleyards include:

Destruction

- Proximity of other businesses and people. Care will be required to prevent injuries and damage associated with using firearms and in particular, bullets ricocheting from hard surfaces. Captive bolt pistols may be preferable.
- Screening from public viewing or an extended quarantine area may also 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 carcase removal.

Disposal

- As 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 possible leakage of potentially infective material. Sealed leak proof trucks or adapted tippers (eg plastic lining and plastic covers will be required).
- Carcasses and other material may need to be sprayed with suitable disinfectant prior to transportation.
- A system for ensuring vehicles and load reach the designated end point will be required and consideration should be given to preventing public access to the transit route until the task is completed and any necessary cleaning and disinfection completed.

4.3.2 Manure/effluent

It is possible that, in some situations, manure is collected from saleyards for use by home gardeners or commercial horticulturalists. Whilst this practice would present very low risk it would be prevented in the event of a saleyard being declared an infected premises.

4.3.3 Stockfeed

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

4.4 Can animals be salvaged?

Subject to a thorough assessment of the level of direct and indirect contact between infected and susceptible livestock, it should be possible, at least on technical grounds, to identify large groups of animals in a saleyard that can be salvaged for slaughter in an abattoir.

The ability to economically utilise the meat will be an important consideration. Awareness of OIE guidelines for meat and animal products and trading partner attitudes will be crucial to decision making. This approach assumes that it can be established with a high degree of confidence that:

- the infected, incubating and other high risk animals have been identified and are destroyed immediately.

- a group of low-medium risk stock that have had no direct contact were penned some distance from the infected livestock and may or may not have passed through laneways/scales after the infected animals. This group could be sent for slaughter at an abattoir providing:
 - an appropriate abattoir exists nearby, and that the stock may be legally transported to it.
 - Stock can be transported to the abattoir without close contact with other stock and the stock vehicle should be escorted to ensure that animals reach their prescribed destination.
 - Considerations that affect this include road surface, driving conditions, vehicle types, the terrain and farming systems through which the stock would pass and public perceptions, especially those 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.
 - The consequences of slaughtering animals from an IP or DCP on the abattoir's ability to operate are understood by all concerned, particularly in the case of export abattoirs. This includes abattoir management. These consequences would include OIE guidelines and Trading Partner attitudes to products from salvaged slaughtered animals. A possible consequence is the prolonging of restrictions on an export abattoir as a result of it being used for salvage slaughter of possibly infected livestock.
 - The meat, byproducts and effluent can be distributed satisfactorily without creating risk of further spread and that the public will accept them.

In practical terms, it is very likely that early in an outbreak of disease a nil risk approach would be taken with respect to animal disposal, ie there will be immediate destruction on site and disposal of the carcasses at a site near the saleyard. However, should an outbreak continue for some time, this approach may need to be reviewed and salvage of meat and co-products attempted because of public and industry perceptions about seemingly needless slaughter and resultant waste. At all times the two most important factors that must be kept in mind are:

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

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

- the length of time that animals are exposed to infective sources. In this regard, saleyard practices such as arrival times in relation to curfews and livestock selling systems will be important. Practices requiring animals to enter the saleyard some hours prior to actual 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, ie infection challenge. Since the chances of infection increase with increasing doses of infective material, the greater the number of infective animals the more likely that disease will be transmitted.

The above guidelines are clearly appropriate for stock assembled for sale for slaughter.

The incubation period of an infectious disease is important in identifying potential risks of animals and their products and is an aid to prioritising activity. In situations where commercial stock have been assembled for sale for breeding, growing out or finishing, ie 'store' sales, the salvage value of the meat may be less due to their poorer body condition, however the same principles should be applied.

Also the detection of an emergency disease in a saleyard may present some unique problems in relation to ownership of stock and valuation — see Appendix 4 for more information.

It may be justifiable to retain animals in quarantine for a period greater than the incubation period for a particular disease when stock are of unique genetic merit and that have had negligible chance of exposure to disease. During this time they would be inspected frequently.

Note: It is most unlikely that this approach would be accepted in the early phases on an FMD outbreak. However it may be applicable if a less infectious emergency disease is involved or an FMD outbreak has persisted for some time. Special conditions would apply and substantial costs would be incurred by the owner.

4.5 Decontamination

Refer to **Decontamination Manual, Sections 4 and 5.**

Effluent — Refer to Section 3.3.4 of this manual and the **Decontamination Manual, Section 5.1.**

Stockfeed — Depending on the disease involved, the potential levels of stockfeed contamination, and the amount of stockfeed involved; options for decontamination include:

- burning or burying
- feeding to stock on hand
- disinfection and/or destruction of the outer layers of the feed stored and retention of the remainder of the supplies for feeding to stock on hand.

Also, see the **Decontamination Manual, Section 5.3.**

4.5.1 Livestock

Options for eliminating or managing contamination by livestock in saleyards include:

Slaughter of animals at the saleyard. This may include destruction on site with resultant potential problems arising from the disposal of carcasses, particularly when saleyards are situated in built-up areas. A further option would be salvage slaughter as discussed in Section 4.4.

Quarantine of animals at the saleyard and frequent observation of the animals for development of clinical signs. The period of observation would have to extend for at least an incubation period, which could create welfare problems in regard to adequate feeding and watering as well as maintenance of a clean environment (see Appendix 3). The disease involved would influence the adoption of this option. With a disease that results in the production of large amounts of infectious material, holding animals could potentially set up a large 'incubator' factory with massive amounts of infectious material occurring when a large

proportion of the animals contract the disease. In this case the proximity of other susceptible species should be considered.

Compensation will be available for livestock and equipment destroyed during the control of prescribed cost-sharing diseases. For further details refer to the **Valuation and Compensation Manual, Section 3**.

4.5.2 Stockfeed

There may be varying amounts of animal feed at the saleyard. Some may be unaffected, some safely decontaminated, and other feed may have to be destroyed. The destruction of large quantities of animal feed is expensive. Manual labour costs of treating the feed may outweigh the benefits of keeping it. Depending on the disease agent involved, keeping the feed or treating it may be judged as too great a risk to contemplate. However, most emergency viruses inactivate spontaneously with time and certain temperature and humidity conditions, thus in some cases feed can be quarantined for a period determined by epidemiology, then used again with confidence.

4.5.3 Discharges

Any action taken in regard to the disposal 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 length of time that they have been excreting into that 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, then surface spraying of yard and laneway surfaces with a suitable disinfectant, and disposal by burial may be appropriate. If the volume is not great, spray with an acid disinfectant, as manure tends to acid pH and this can be enhanced by acid treatments. Note that hypochlorite has limited effectiveness in the presence of high organic loads.

Remove treated manure and infectious wastes such as soil, bedding etc, and bury in a pit.

If high levels of contamination are unlikely, securing the effluent area and preventing direct contact by susceptible species, and allowing the natural processes of aerobic and/or anaerobic digestion, exposure to sunlight and time may be the most appropriate strategy.

4.5.4 Vehicles

There will be a wide range of potential risks of being contaminated and the likelihood of infecting susceptible stock depending on the class of vehicle being considered.

Livestock Transports

The livestock transports that carried the suspect livestock from the property of origin represent the highest risk and should be subjected to a meticulous cleaning and disinfection. Refer to **Decontamination Manual, Section 4**. Other livestock transports at the saleyard are unlikely to be contaminated, unless their drivers pick up infection from infected areas in yards or by aerosol spread.

Whilst the likelihood of contamination with virus is not great, where there is the possibility of close and prolonged exposure to susceptible stock, *all* livestock vehicles should be subjected

to a thorough wash, preferably with a low volume, low pressure soak with appropriate disinfectant, followed by a high volume, high pressure cleaning by water.

A period of quarantine for a vehicle, which prevents the carrying of susceptible species for a specified period, following such a decontamination may be appropriate. This may be a practical option, given the likelihood of a stand-still on stock movements and no demand for trucks.

Transports that wish to leave the RA, eg to return to a base outside the RA, will require a more meticulous decontamination, similar to that for the vehicles that transported the infected stock.

Farmer vehicles

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

Livestock agent vehicles

Vehicles belonging to livestock agents and yardmen may have a higher risk of contamination, particularly through contaminated footwear. However, the risk of contact, with susceptible animals will generally be less than with farmer's vehicles, unless the agent/yardman 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 the lowest risk category and a brief hose down or no action may be all that is required. Decontaminating the vehicle wheels by driving through a disinfectant bath may be considered. Should feed vehicles be present at the saleyard, they may be treated similarly to farm utes or livestock transports depending on the assessed degree of exposure.

4.5.5 Equipment and materials

There is generally limited equipment and materials present at saleyards but these may include canes and goads, branding paint and brands, dogs and horses that are associated with stock handling. In addition, 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 level of exposure to infection. The livestock handling equipment may have the greatest potential for exposure. Refer to **Decontamination Manual, Section 5**, which gives information relating to field equipment. Compensation may be payable for equipment damaged or destroyed during the decontamination. Refer to the **Valuation and Compensation Manual, Section 3**.

4.5.6 Personnel

High risk personnel present at saleyards include transport drivers, agents and yardmen, veterinarians, and owners of infected stock. Medium risk personnel include farmers and livestock buyers. Personnel representing the lowest risk of spreading disease include canteen staff and the general public. *In all cases personnel should be informed of actions and reasons for them. Written advice should accompany verbal information. Refer to Appendix 5.*

High risk personnel

These personnel should shower/bathe and change their clothes and footwear prior to 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 this category of saleyard contacts have no stock contact for at least 3 days, depending on disease.

Medium risk personnel

Treat as for high risk personnel.

Low risk personnel

Disinfect footwear before leaving saleyard and allow to return home, advising to shower/bathe change and wash clothes.

4.5.7 Vermin and feral animals

Rodents, foxes and cats are the most likely vermin and/or feral animals likely to be associated with saleyards. These animals, depending upon the disease, probably represent a low risk of being the means of spread of disease but should be considered as part of decontamination process with a low priority. Dogs and horses may also be present in saleyards and require consideration. In some cases, wandering stock may need to be considered. Secure quarantine of the premises should prevent these being a problem.

4.5.8 Buildings and structures

These may include:

- yards, whose surfaces will vary from earth to cobblestone to concrete
- fences whose construction may range from wood to steel
- shelters for stock feed and water troughs
- liveweight scales, mainly metal but may be of intricate construction
- shelters and seating for personnel
- canteen/office complex
- machinery/maintenance shed
- fodder storage sheds

All these areas must be assessed for their risk in spreading of disease and their decontamination prioritised. Areas in which infected stock spend most time constitute highest risk, followed by those through which they passed such as unloading ramps, laneways, scales, pregnancy testing races.

High risk areas

Require a preliminary spray with suitable disinfectant, utilising low volume/low pressure. The yard sprinkler system may be able to be utilised. This should be followed by mechanical cleaning and disposal of solid wastes by burial. A final high volume/high pressure wash down with water should be considered. Refer to **Decontamination Manual, Sections 4 and 5**.

Earthen yards

The **Decontamination Manual, Section 4.2.3** states earthen floors in buildings may need to be broken up and soaked in disinfectant. Concretions and encrustations of material on permanent surfaces are removed. This is most easily achieved by low pressure spraying with water, or water and detergent, using steam cleaners or 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. All permanent surfaces must be free of

visible contamination. All feedstuff considered contaminated must be removed and buried after valuation. Feeding and water troughs are emptied and cleaned out.

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

Other areas

The amount of cleaning and disinfection input should be according to risk. A preliminary spray with suitable disinfectant and mechanical cleaning may be needed. Structures that cannot be adequately decontaminated may need to be removed, buried and compensation paid (if available).

4.6 Other precautions/considerations

Quarantining and securing of premises including holding yards, effluent disposal and truck wash areas. Implementation of quarantine movement control upon first suspicion of disease will be most difficult. Reliable and rapid risk assessment should focus on priority areas. The least possible disruption to normal movement patterns will assist maintaining public cooperation whilst minimising risk.

4.7 Tracing requirements

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

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

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

- Stock that may already have left the sale (sold or returned to properties).
- Other stock that were in yards and have left, eg resting stock or stock being transhipped.
- Trucks etc that have delivered stock and left the saleyard.
- Trucks that have been to other properties after their first delivery, (a list of these properties would be required).
- People who may have been to the saleyards earlier in the day or the evening before and who have subsequently left.
- Stock such as dogs or horses in the area: these should be confined.

Tracing procedures and prioritisation are addressed in the **ANEMIS Manual**.

4.8 Proof of freedom

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 is needed. This will be followed by close observation for a interval longer than the incubation period (see the appropriate **Disease Strategy** for more detail).

4.9 Media and public relations

Veterinarians, farmers, saleyard staff, transporters and all those involved in the emergency disease outbreak need to be very careful about providing information to the media, either directly, or indirectly. Advice to the media should be restricted to activities directly affecting the saleyards 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 LDCC. For further information see the **Public Relations Manual, Section 2.1**. Maintaining an appropriate channel of communication with the media is an important function of the LDCC. It is made very difficult if other information is coming from elsewhere that may appear to conflict with advice given by the LDCC.

5 TRANSPORT

The occurrence of a serious emergency disease affecting sheep and cattle (or pigs) would have a significant impact on the livestock transport industry. The nature of the impact would depend on the disease involved, the regions in which the disease was detected, and the ability to quickly implement zoning of the infected area. Livestock transport operations in the restricted area would be severely curtailed, as all but essential livestock movements are prohibited until the disease outbreak is brought under control. Stock movements in the surrounding control areas would be less disrupted, however a range of precautions would still be implemented to minimise the risk of spread of disease. A number of principles form the basis of precautions and restrictions that would apply to the transport of livestock in the event of a disease emergency.

5.1 Nature of the disease

Diseases such as FMD are spread mainly by the movement of livestock and the exposure of susceptible animals to contaminated/infected animals or things. Other diseases such as bluetongue are spread mainly via insect vectors, although livestock movements may be responsible for spreading the disease long distances. Information on each disease and the significance of saleyards (transport) in the spread of the disease is included in section 1.2.1. Table 5 provides additional information on the risk of spread of each disease and Table 6 provides more information on the persistence of FMD under a range of conditions. Figure 1 also provides additional information on how FMD may spread.

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

Premises or areas can be declared as infected, restricted or under control depending on the degree of risk of infection. IPs, which have had disease confirmed, or suspected, will be subjected to severe restrictions, as well as movement control in RAs to reduce the risk of spread from as yet undetected disease in the high risk areas. The CA will generally be a low risk with some controls, just in case the disease has spread wider than first suspected. As the controls in RAs may be quite severe, the RA will be made as small as possible (without compromising disease eradication efforts) to minimise impact 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 infected premises with each RA surrounded by a CA, which may initially involve the whole state or territory. Area boundaries will be continually modified in the light of new knowledge with areas being large initially when least is known about the disease and progressively reduced as the situation clarifies.

5.3 Animal movements

A general principle that will be applied is that animals may not move from an area of high risk (low health status) to an area of higher health status. On the other hand, animals may be allowed to move from an area of high health status to an area of lower health status -

providing the movement is essential and does not result in more susceptible animals being exposed to infection. Figure 2 represents the movements possibly permitted in the case of FMD (for further information see the AUSVETPLAN **Foot-and-mouth Disease Strategy, Appendix 2**). Restrictions for other diseases would depend on the disease involved but in many cases would be similar to FMD. In general:

- 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 will be allowed when 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 abattoirs are permitted under specified conditions.
- Livestock transporters should contact local stock inspectors or the LDCC prior to picking up livestock in order to check on the relevant restrictions. In most cases a movement permit system will apply.

5.4 Hygiene

Maintaining excellent personal hygiene and clean transports will be extremely important during an outbreak of emergency disease. This will help minimise the risk of spread of disease by contaminated footwear, clothing or 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.

5.5 Records

Good records detailing property visits, livestock pick-ups and deliveries will be required in order to rapidly trace movements in the case of suspicion of disease.

5.6 Cooperation

The cooperation of livestock transporters will be essential in order to effectively eradicate the disease with least possible problems. In particular early reporting of any suspected disease and good record keeping and the making available to animal health staff of all relevant information will be most helpful. *Do not hesitate to contact local animal health authorities.*

5.7 Recognition of disease/early reporting

Livestock transporters may well be the first people to see an emergency disease. Therefore drivers should familiarise themselves with the symptoms of the major emergency diseases and report any abnormal signs to local animal health staff. *Do not hesitate to report a suspect disease.*

5.8 Action when disease is suspected

These are the main actions for a transport operator to follow if an emergency disease is suspected:

- contact a government veterinarian immediately — use the 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 may be committing an offence);
- keep suspect infected animals 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 go onto a property with other susceptible livestock until you have discussed the situation with a government veterinarian; and
- Minimise risk of further spread of disease eg ensure no contact with other susceptible stock.

The Livestock Transport Drivers Manual produced by the Livestock Transporters Association of Victoria provides general guidance on health and welfare aspects of livestock transport.

APPENDIX 1 Codes of practice and legislation relevant to each State/Territory

Every State/Territory has codes of practice and legislation that may impact on the management of emergency disease involving a saleyard. The codes and legislation for each state or territory are summarised in the following tables.

NEW SOUTH WALES

Legislation/Codes	Comment
Stock Diseases Act 1923	Identification of livestock
Prevention Of Cruelty to Animals Act 1979	Animal Welfare
Exotic Diseases of Animals Act 1991	Exotic Disease notification and control
Codes of Practice	
Selling of Cattle and Bobby Calves in NSW saleyards	Compliance with codes is a condition of licensing Contact: Meat Industry Authority Ph 02 412 3311
Selling of Sheep and Lambs in NSW saleyards	Compliance with codes is a condition of licensing Contact: Meat Industry Authority Ph 02 412 3311
Stock Transport	Contact Australian Livestock Transporters Assoc. Executive Officer: Ph 02 6247 5434.

VICTORIA

Legislation/Codes	Comments
Livestock Disease Control Act 1995	Includes powers of inspector of stock and covers exotic diseases
Prevention of Cruelty to Animals Act 1986	
Stock (Seller Liability and Declarations) Act 1993	The vendor warrants that stock are free of certain diseases and meet specified descriptions
Codes of Practice - Welfare	Failure to comply with a code of practice can be used as evidence of cruelty
Codes of Practice - Saleyards	Code being developed

QUEENSLAND

Legislation/Codes	Comments
Stock Act 1915	<p>This Act defines a saleyard as "Any yard, premises, or place where stock are sold or offered or exposed for sale, or where stock are held or kept for the purpose of being sold or offered or exposed for sale or where stock are kept or held on sale".</p> <p>There are few references in the Act to saleyards however inspectors have special powers in respect to travelling stock, which includes stock while at a saleyard. These include the ordering of destruction and disposal of diseased stock, a power not available to an inspector on a normal holding.</p> <p>By order of the Minister the owner of the saleyard may be required to erect facilities. Section 29 "Powers of an Inspector" applies.</p> <p>Covers tail tagging</p>
Exotic Disease in Animals Act 1981	All of the powers of relating to holdings apply.
The Animals Protection Act 1925	In process of change (1995).

NORTHERN TERRITORY

Legislation/Codes	Comment
Stock Diseases Act 1954	<p>This covers tail tagging (all stock attending sales must be tail tagged), treatments (eg for ticks), disease status and interstate health certification (for stock purchased by interstate buyers).</p> <p>This Act also covers legislation required to impose quarantine and movement restrictions. Welfare issues regarding the watering of stock etc are also under this legislation.</p>
Stock Routes and Travelling Stock Act.	This legislation covers waybills - all cattle to and from saleyards must be covered by a waybill.
Brands Act	All travelling stock and/or stock offered for sale must be branded
Prevention of Cruelty to Animals	Relevant general welfare issues
Exotic Disease (Animals) Compensation Act 1981	This covers the payment of compensation for stock destroyed as part of disease control for the 12 diseases listed in the national cost-sharing agreement.
Codes of Practice for the Transport of Livestock	The NT abides by the national code of practice

WESTERN AUSTRALIA

Legislation	Comments
Prevention of Cruelty to Animals Act 1920	New Act being drafted
Animal Welfare Codes	Follow National Codes
Stock Disease (reg) Act 1968	Covers Endemic Diseases and Swill Feeding
Exotic Diseases of Animals Act 1993	
Environment	Covered by local health surveyor Codes similar to those for feedlots

SOUTH AUSTRALIA

Legislation/Codes	Comment
Livestock Act 1997	
State Disaster Act 1980	
Prevention of Cruelty to Animals Act 1985	

TASMANIA

Legislation	Comment
Stock Act 1932	This Act includes all the provisions for control of exotic diseases of animals. Saleyards would be treated in the same way as other premises.
Environment Protection Act 1973	This Act will be replaced by the Environmental Management and Pollution Control Bill 1994. Aspects of this legislation impact on the environmental considerations regarding the burning or burial of carcasses. Effluent from saleyards that may enter streams or rivers etc. is covered by the Water Pollution Regulations 1974 of the Environment Protection Act.
Animal Welfare Act 1993	This legislation covers all welfare aspects of animal management. This legislation does allow the Minister to approve Animal Welfare Standards.

TASMANIA (cont)

<p>Codes of Practice for Animal Welfare</p> <p>Animal Health Bill 1995</p>	<p>These Codes of Practice are endorsed by the Minister through ARMCANZ but as such do not have any standing at law.</p> <p>Under the Animal Welfare Act the Minister can approve a Code of Practice to be an Animal Welfare Standard which then gives it some authority under the legislation.</p> <p>The Tasmanian Code of Practice for the Welfare of Animals in Saleyards, is based on National Model Code.</p> <p>Consolidating Bill expected to be made law, 1996</p>
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ACT

Legislation/Codes	Comment
Animal Welfare Act 1992	
Animal Diseases Act 1993	Includes some Kaney Principles
Codes of Practice Welfare	Codes based on model codes

APPENDIX 2 Key telephone numbers

If you are suspicious of emergency disease:

- ring and report it immediately
- do not leave messages
- you *must* speak to a government veterinarian at one of the following contact points

1 Your local District Veterinary Officer phone number _____

if you cannot contact him/her, ring

2 Your Regional Veterinary Laboratory phone number _____

if you cannot make contact, ring

3 24-hour Disease Watch Hotline (freecall) phone number **1800 675 888**

(mobile phones Australia-wide will connect with NSW Agriculture)

if you cannot get voice contact, ring

4 Your State/Territory Chief Veterinary Officer

(phone numbers as of September 1999)

NEW SOUTH WALES

CVO

Chief Veterinary Officer

Division of Animal Industries, NSW Agriculture

Locked Bag 21

Telephone (02) 6391 3699

ORANGE NSW 2800

Facsimile (02) 6391 3208

VICTORIA

CVO

Chief Veterinary Officer

Dept Natural Resources and Environment

475-485 Mickleham Road

Telephone (03) 9217 4247

ATTWOOD VIC 3049

Facsimile (03) 9217 4322

QUEENSLAND

CVO

Director

Animal and Plant Health Service, Department of Primary Industries

GPO Box 46

Telephone (07) 3239 3546

BRISBANE QLD 4001

Facsimile (07) 3239 3558

WESTERN AUSTRALIA

CVO

Chief Veterinary Officer

Division of Animal Industries

Agriculture Western Australia

Telephone (08) 9368 3342

Locked Bag No. 4

Facsimile (08) 9367 6248

Bentley Delivery Centre WA 6151

SOUTH AUSTRALIA**CVO**

Chief Veterinary Officer

Department of Primary Industries and Resources

GPO Box 1671

Telephone (08) 8207 7970

ADELAIDE SA 5001**Facsimile (08) 8207 7852****TASMANIA****CVO**

Chief Veterinary Officer

Department of Primary Industry Water and Environment

13 St Johns Avenue

Telephone (03) 6233 6836

NEW TOWN TAS 7008

Facsimile (03) 6233 3843

NORTHERN TERRITORY**CVO**

Chief Veterinary Officer

Department of Primary Industry and Fisheries

GPO Box 990

Telephone (08) 8999 2131

DARWIN NT 0801

Facsimile (08) 8999 2089

AUSTRALIAN CAPITAL TERRITORY**CVO**

ACT Veterinary Officer

ACT Veterinary Services

Telephone (02) 6207 2357

PO Box 7097

Facsimile (02) 6207 2361

CANBERRA MAIL CENTRE ACT 2610

APPENDIX 3 Holding of livestock

Consider welfare, provision of water, feed and shelter. Consider the anticipated delay — is it likely to be hours or days before stock may be moved/destroyed? In most cases a diagnosis will be available within 24 hours but delays of up to 3 days may occur.

Animal factors

Consider – species, age, class and physiological status of animals, in particular the special needs of bobby calves, recently weaned young stock, lactating and/or heavily pregnant females, very thin, old or weak stock.

Consider legal factors, consider the relevant codes of practices/legislation.

Environmental factors

Consider saleyards structure and facilities including:

- availability and quality of water for stock;
- effluent disposal system - particularly important in relation to where and what stock can be fed (eg hay may block many effluent disposal systems). Does the system have 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 on stock but may result in dust and mud problems.
- is appropriate shelter available for the classes of stock involved?

Climate

Extremes of weather eg very hot or cold wet and windy weather will create stress on livestock and increase importance of provision of water, feed and shelter.

Disease risk

Source of infection to neighbouring premises

Consider nature of disease suspected, mechanisms of spread and proximity and nature of at-risk premises. At-risk premises could include feedlots, piggeries, dairies, abattoirs or general grazing properties. Will the high density of stock generate high concentrations of infective material/organisms? Windborne spread of FMD is of greatest concern, however, depending on the disease involved, transmission by insects, effluent, escaped livestock and feral animals may require consideration.

Ability to decontaminate premises

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

Logistics

Can adequate supplies of safe, appropriate feed and water be obtained and dispensed to livestock. Feeding 1000 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, cleaning and maintenance of yards;
and
- veterinary costs for livestock that become ill.

These costs may be covered providing the disease suspected is included in the Commonwealth/State cost-sharing agreement.

APPENDIX 4 Valuation/ownership of stock at saleyard

The detection of an **emergency** disease in a saleyard may present some unique problems in relation to ownership of stock and valuation.

Ownership

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

Vendors

Selling agents' records will provide details of ownership of vendors. Most cases will be straight forward 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 often seem reluctant to divulge 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 purchase should they subsequently discover something that they consider may disadvantage them.

It would therefore be important to fully understand the relevant legislation should some buyers wish to renege on purchases due to either the confirmation of an **emergency** disease or the suspicion of it.

APPENDIX 5 Guidelines for key staff in event of emergency disease being suspected in saleyard

Role Statement for key people:

- Saleyard Management
- Livestock Agents
- Transport Operators

The two most important things to do in the event of a suspected disease emergency are:

- 1) Notify the local Department of Agriculture or private veterinarian.
- 2) Isolate suspect stock and minimise further contact with them by people or animals.

After taking the above action every assistance should be given to the Dept of Agriculture that will be very busy attempting to confirm a diagnosis and minimise risk of spread of disease should it prove to be an emergency disease.

The following guidelines provide an indication of the type of assistance that may be sought.

Each State/Territory may wish to adapt these general guidelines to their own circumstances.

Key people involved include:

- saleyard management
- livestock agents
- transport operators
- buyers
- veterinarians

If FMD is confirmed it may lead to a major loss of export markets. This would impact severely on all Australians. The disease may spread rapidly and widely from the saleyards via the movement of animals, vehicles, people and things. FMD is spread mainly by close contact between infected animals and susceptible animals although indirect contact via, eg contaminated footwear is possible. *Your assistance in addressing the problem is vital.*

Co-operation in the following areas would be appreciated:

- please do not leave the premises until your name, address and contact details are given to an Inspector of Stock or his deputy.
- you may then proceed home (via agreed exit) where you should have a shower/bath and thoroughly wash your clothes and footwear.
- whilst the risk of you carrying infection after these procedures is minimised it would be desirable if you did not have direct contact with livestock (cattle, sheep, goats, pigs, alpacas) for 3 days.
- please remain alert for any signs of disease in stock that you may observe and report any concerns to your local Stock Inspector.

Your assistance is sought in addressing the following priorities:

- Implementation of quarantine of the saleyards to prevent movement of stock, people, vehicles into, out of and within saleyard:
 - secure exits/entrances
 - stop internal movement of stock unless officially advised to do so
 - minimise further contact between people, vehicles and stock
 - contact incoming and outgoing vehicles and prevent further unloading/loading until officially advised to do so
- Commence gathering details that will assist with the tracing of livestock, vehicles and people movements, with emphasis on:
 - any that have had close contact with suspect stock eg vehicles that transported suspect stock to saleyards
 - people in close contact with suspect stock eg veterinarian
 - those that have left the saleyard eg stock which have been sold or returned home
 - vehicles that carried the above
 - people who have left the saleyard
- Establishing and implementing system for allowing orderly exit of people from saleyards;
 - identify exit points
 - set up security and system to record details of who leaves ie name, address, telephone, whether own or contact stock
 - set up footbath (maybe)
 - provide written advice to those who leave saleyard
- Assistance in examination of suspect and other livestock as requested.
- Preparation and presenting of records of ownership and origin of stock in preparation for valuation.
- Providing details of you and your vehicle's movements/stock contacts in the preceding days.
- Assisting the authorities with initial communications and general support.
- Advising of suspected unauthorised movements.
- Prior to leaving the saleyards you will need to have a shower/bath and change into clean clothes/footwear. Your 'old' clothes/footwear will be cleaned and returned to you.
- As there is a slight possibility of spreading disease to other livestock you should have no contact with livestock or livestock premises for the next 3 days unless requested by authorised staff of the Department of Agriculture.
- Remaining alert for any signs of disease in stock, that you may observe and reporting any concerns to your local stock inspector or the LDCC.

GUIDELINES FOR OTHER (NON KEY) STAFF AND PUBLIC IN THE EVENT OF AN EMERGENCY DISEASE BEING SUSPECTED IN A SALEYARD

People involved would include:

- canteen staff
- administration staff
- general public

Cooperation in the following areas would be appreciated:

- Please do not leave the premises until your name, address and contact details are given to an inspector of stock or his deputy.
- You may then proceed home (via agreed exit) where you should have a shower/bath and thoroughly wash your clothes and footwear.
- While the risk of you carrying infection after these procedures is minimal it would be desirable if you did not have direct contact with susceptible livestock for example cattle, sheep, goats, pigs, alpacas for 3 days.
- Please remain alert for any signs of FMD in stock that you may observe and report any concerns to your local stock inspector.

APPENDIX 6 Recommendations for preparation before an emergency disease incursion

SALEYARD OWNERSHIP/MANAGEMENT

Develop and/or adhere to codes of practice that include consideration of reducing the risk of and impact of a serious disease.

Issues to include:

- Saleyard location, construction, cleaning and maintenance, effluent disposal.
- Frequency of sales, 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 required.
- Recording systems to be accurate and enable rapid tracing of ownership and stock movements.
- Seek veterinary advice on sick and dead stock and ensure that system for carcase 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/TRANSPORT OPERATORS

Improve awareness of likely emergency diseases' presenting signs, whom to contact if necessary and enhance knowledge of impact of an emergency disease on the operation of their business.

Issues to include:

- The powers of the lead authorities including quarantine of livestock and vehicles. Emphasis value of cooperation.
- Understanding the principles of movement control.
- The concepts of Restricted and Control areas and their specific impact.
- The importance of public perceptions about risk.
- The consequences that any contact with infected, dangerous contact or suspect premises is likely to lead to prevention of subsequent contact with susceptible species for up to 7 days.
- Ensure vehicle and personal hygiene are in good order to minimise risk of spreading disease.
- Maintain good records of stock movements/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;

- a) Retain access to network to keep abreast of industry practices.
- b) Maintain and enhance credibility with key industry people whose cooperation is essential in an emergency disease outbreak.

- c) Maintain and enhance awareness of potential emergency diseases and likely responses.
- d) Participate in the development of codes of practice for the operation of saleyards to encourage adoption of the risk reduction precautions such as
 - construction and maintenance of facilities in an easily cleansed condition
 - regularly clean saleyards and surrounds
 - ensure 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.
- e) Maintain contact with EPA and related authorities to ensure effluent disposal solutions do not present disease transmission risks.
- f) Prepare draft key personnel role statement in consultation with saleyard management and livestock agents and test in training exercises.
- g) Prepare draft information leaflets for distribution in event of an emergency disease occurrence in a saleyard.
- h) Maintain awareness of evolving policies, especially zoning and vaccination (in the case of FMD), and the recognition of the major mechanisms of spread for various diseases.

GLOSSARY

ANEMIS	Animal Health <i>Emergency Information System</i> . A system for the collection, assimilation, actioning and dissemination of essential disease control information using paper documentation and a computer data base.
AUSVETPLAN	A series of documents that describe the Australian response to emergency animal diseases linking policy, strategies, operations, coordination and emergency-management plans.
Chief veterinary officer	The senior veterinarian of each State or Territory animal health authority who has responsibility for animal disease control in that State or Territory.
Chief Veterinary Officer of Australia	The nominated senior Commonwealth veterinarian in the Department of Agriculture, Fisheries and Forestry - Australia who manages Australia's international animal health commitments and the Commonwealth's response to an animal disease outbreak.
Control area	A larger area than a restricted area (possibly initially as big as the State) where restrictions will reduce the chance of the disease spreading further afield. The control area may reduce in size as confidence about the extent of the outbreak becomes clearer but must remain consistent with OIE Codes. In principle, animals and specified product will only be able to be moved out of the control area into the free area by permit.
Cost-sharing agreement	Commonwealth/States cost-sharing agreement for the eradication of certain emergency animal diseases.
Dangerous contact animal	An animal showing no clinical signs of disease but which, by reason of its probable exposure to disease, will be subjected to disease control measures (which may require slaughter of all or some of such animals).
Dangerous contact premises	Premises that contains a dangerous contact animal(s) or other serious contact.
Declared area	A defined tract of land for the time being subject to disease control restrictions under emergency disease legislation. Types of declared areas include <i>restricted area</i> ; <i>control area</i> ; <i>infected premises</i> ; and <i>dangerous contact premises</i> .
Disposal	Sanitary removal of animal carcasses and things by burial, burning or some other process so as to prevent the spread of disease.
Emergency animal disease	Includes exotic animal diseases and endemic diseases that warrant a national emergency response
Enterprise	<i>see</i> Risk enterprise.
Exotic animal disease	A disease affecting animals that does not normally occur in Australia. Also called foreign animal disease.
Forward command post	A field operations centre, subsidiary to a local disease control centre.
Index case	The first or original case identified to have occurred in a disease outbreak.

Infected premises	A defined area (which may be all or part of a property) in which an emergency disease or agent exists, or is believed to exist.
Job card	A written list of tasks to be carried out by an individual in the early stages of an emergency response.
Local disease control centre	An emergency operations centre responsible for the command and control of field operations in a defined area.
Movement control	Restrictions placed on movement of animals, people and things to prevent spread of disease.
National disease control headquarters	A centre established in Canberra from which national disease control actions are coordinated in an animal disease emergency.
Quarantine	Legal restrictions imposed on a place, animal, vehicle or other things limiting movement.
Restricted area	A relatively small declared area (compared to a <i>control area</i>) around an infected premises that is subject to intense surveillance and movement controls. Movement out of the area will in general be prohibited, while movement into the restricted area would only be by permit. Multiple restricted areas may exist within one control area.
Ring vaccination	Vaccination of susceptible animals around a focus of infection to provide a buffer against the spread of disease.
Risk enterprise	Livestock-related enterprise with a high potential for disease spread or economic loss.
Role description	Statement of functions of a position within the overall operation.
Sentinel animals	Animals of known health status monitored for the purpose to detect the presence of a specific emergency disease agent.
Spell	Keep unused for a period of time until there is no risk of disease agent remaining.
Stages of activation and deactivation	The four stages of an emergency disease emergency plan are investigation, alert, operational, stand-down.
– investigation	exists when a report assessed as being a low probability of a disease is being investigated by animal health authorities;
– alert	exists when a high probability that a disease emergency is present or is confirmed in another State;
– operational	when the CVO determines that an animal disease emergency exists in the State, and operations to contain control or eradicate the disease are implemented;
– stand-down	when the CVO determines that an animal disease emergency no longer exists.
State disease control headquarters	The emergency operations centre that directs the disease control operations to be undertaken in the State.
Stamping out	Eradication procedures based on quarantine and slaughter of all infected animals and animals exposed to infection.
Surveillance	A systematic examination and testing of animals or things to determine the presence or absence of an emergency disease.

Suspect animal	An animal that is may have been exposed to an emergency disease such that its quarantine and intensive surveillance, but not pre-emptive slaughter, are warranted; OR, an animal not known to have been exposed to a disease agent but showing clinical signs requiring differential diagnosis.
Suspect materials or things	Materials or things suspected of being contaminated by an emergency disease agent.
Suspect premises	Premises containing suspect animals that will be subject to surveillance.
Tracing	The process of locating animals, persons or things that may be implicated in the spread of disease.
Vector	A living organism (frequently an arthropod) that transmits an infectious agent from one host to another. A <i>biological</i> vector is one in which the infectious agent must develop or multiply before becoming infective to a recipient host. A <i>mechanical</i> vector is one that transmits an infectious agent from one host to another but is not essential to the life cycle of the agent.
Vector control area	An area in which the containment, control or reduction of specified vector populations is conducted.
Zoonosis	A disease that can be spread between animals and people.
Zoning	The process of defining disease-free and infected zones, based on geopolitical boundaries and surveillance, in accord etc as above.

Abbreviations

ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
AFFA	Department of Agriculture, Fisheries and Forestry - Australia
ANEMIS	Animal Health Emergency Information System
AUSVETPLAN	Australian Veterinary Emergency Plan
BSE	Bovine spongiform encephalopathy
CA	Control area
CALM	Computer assisted livestock marketing
CCEAD	Consultative Committee on Emergency Animal Diseases
CVO	Chief veterinary officer
DCP	Dangerous contact premises
FMD	Foot-and-mouth disease
IP	Infected premises
LDCC	Local disease control centre
NDCHQ	National disease control headquarters
OIE	Office International des Epizooties [World Organisation for Animal Health]
PPR	Peste des petits ruminants
RA	Restricted area
SDCHQ	State disease control headquarters

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