

AUSTRALIAN VETERINARY EMERGENCY PLAN

AUSVETPLAN

Resource document

Tracing and product recall from export-certified abattoirs affected by African swine fever

Version 5.0

AUSVETPLAN is a series of technical response plans that describe the proposed Australian approach to an emergency animal disease incident.

The documents provide guidance based on sound analysis, linking policy, strategies, implementation, coordination and emergency-management plans.

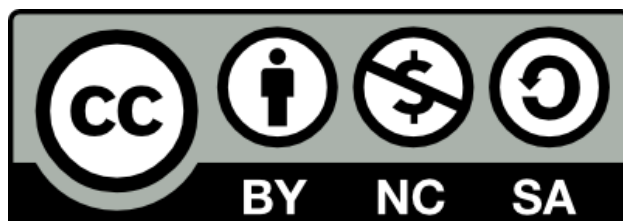
National Biosecurity Committee

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EMERGENCY ANIMAL DISEASE HOTLINE: 1800 675 888

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

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1. Introduction

1.1. This manual

1.1.1. Purpose

As part of the Australian Veterinary Emergency Plan (AUSVETPLAN), this resource document has been developed to assist personnel involved in the response to an African swine fever (ASF) incursion to manage the animal health risks posed by the movement of pig products and byproducts from export-registered abattoirs identified as infected premises (IP) or dangerous contact processing facilities (DCPFs). This includes information on tracing affected products and on recalls from the domestic market.

Together with the other components of AUSVETPLAN, this resource document has been developed to help ensure that an efficient, effective and coherent response can be implemented consistently across Australia with minimal delay.

1.1.2. Scope

This document proposes guidance for governments and industries to assess and manage animal health risks posed by pig products and byproducts that have been moved from export-registered abattoirs before being identified as IP or DCPFs during an ASF response.

This includes options to manage the risk, such as tracing of products and recalls from the domestic market.

The information contained within this resource document does not apply to the management of products and byproducts:

- being moved from domestic abattoirs
- that are located on an abattoir premises
- that may not meet certification requirements for export
- to support zoning and/or compartmentalisation for international trade.

All potentially contaminated or cross-contaminated product or byproduct that has not yet left an abattoir should be managed according to the Animal Health Committee (AHC) abattoir ASF policy and matrix on management of product at an abattoir. See also the **AUSVETPLAN resource document *African swine fever response operational guidelines for pig abattoirs***.

1.1.3. Development

In 2020 an AHC ASF abattoir task group was convened to develop guidance for export abattoirs in the event of an ASF incursion. The group consisted of representatives from state government agricultural departments (or equivalent), each of Australia's 7 pork export abattoirs, Australian Pork Limited and the then Australian Government Department of Agriculture, Water and the Environment. In September 2020, AHC (AHC38 OOS13) endorsed guidance prepared by the group, titled *Forward tracing and product recall from abattoirs affected by ASF*, and agreed to its incorporation into an AUSVETPLAN document.

This resource document has been produced in accordance with the procedures described in the **AUSVETPLAN Overview**, and in consultation with Australian, state and territory governments; the

relevant livestock industries; nongovernment agencies; and public health authorities, where relevant.

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

1.2. Other documentation

This resource document should be read and implemented in conjunction with:

- other AUSVETPLAN documents, including response strategies; operational, enterprise and management manuals; and any relevant guidance and resource documents. The complete series of manuals is available on the Animal Health Australia website¹
- relevant nationally agreed standard operating procedures (NASOPs).² These procedures complement AUSVETPLAN and describe in detail specific actions undertaken during a response to an incident. NASOPs have been developed for use by jurisdictions during responses to emergency animal disease (EAD) incidents and emergencies
- relevant jurisdictional or industry policies, response plans, standard operating procedures and work instructions
- relevant Commonwealth and jurisdictional legislation and legal agreements (such as the Emergency Animal Disease Response Agreement [EADRA],³ where applicable).

1.3. Training resources

Animal Health Australia's online EAD foundation course⁴ provides livestock producers, veterinarians, veterinary students, government personnel and emergency workers with foundation knowledge for further training in EAD preparedness and response in Australia.

¹ <https://animalhealthaustralia.com.au/ausvetplan>

² <https://animalhealthaustralia.com.au/nationally-agreed-standard-operating-procedures>

³ <https://animalhealthaustralia.com.au/eadra>

⁴ <https://animalhealthaustralia.com.au/online-training-courses>

2. Executive summary

Tracing, but not necessarily recall, of meat and byproducts that have been transported from an abattoir will occur if there is suspicion or knowledge that the product is affected by ASF virus (ASFV). This guidance document discusses the advantages and disadvantages of initiating product recalls in the domestic market, including the logistical challenges and effects on consumer confidence and demand for pork. All pigs undergo ante- and postmortem inspection by qualified inspectors, which reduces the risk of clinically affected animals being processed. Products and byproducts from abattoirs pose minimal risk of transmission to susceptible species. Therefore, product recalls for product that has left the abattoir are not recommended as a default position, but they may need to be considered on a case-by-case basis.

This resource document proposes guidance for governments and industries to assess and manage animal health risks posed by pig products and byproducts that have been moved from export-registered abattoirs before being identified as IP or DCPFs during an ASF response.

Policy recommendations:

- Tracing of potentially contaminated product is recommended to inform decision making.
- Products and byproducts from a pig that has passed ante- and postmortem inspection at an export-registered abattoir are less likely to be a source of ASF transmission.
- A product recall of only whole carcasses would be implemented under exceptional circumstances when, after risk assessment, it is determined critical to manage the risk of transmission, and that the benefits outweigh the socioeconomic costs.

The basis for the policy recommendations involved consideration of several factors, including the:

- clinical and postmortem presentation of an ASF-infected cohort of animals with a virulent strain⁵
- likely significant intraherd prevalence of an infected herd
- likely minimal timeframe, if any, of virus shedding before the expression of clinical signs⁵
- pathogen not posing a human health risk
- high sensitivity of ante- and postmortem inspection procedures at export abattoirs leading to a low likelihood of clinically affected ASFV pigs not being detected or condemned during ante- and postmortem inspection
- feasibility of recalling product and byproduct, with consideration to timeliness, efficiency, cost, and the balance of transmission risk managed against other risks created in doing so. Whole carcasses are likely to be the only product able to be recalled efficiently and in a timely manner.

⁵ Note: Reliance on detectability through clinical signs and post mortem presentation along with assumptions around viral shedding from infected animals will be less relevant in the advent of infection with lower virulent strain.

3. Background

The Australian pig industry is unlike red meat industries in that there are only 7 export-registered abattoirs (Table 3.1). Typically, domestic-registered abattoirs have very limited relative throughput, as is evidenced in Queensland where the export-registered abattoir kills 96% of the state's pigs (R van Barneveld, pers comm, 2020).

Table 3.1 Number of export-registered pig abattoirs in each state and territory

State or territory	Number of abattoirs
ACT	0
Qld	1
NSW	2
NT	0
SA	2
Tas	0
Vic	1
WA	1

Australia exports only 8% of its annual pork production. Due to import requirements for imported pork, all fresh (uncooked) pork sold in Australia is from Australian pigs.

In the event of an ASF incursion, due to the nature of the pork industry supply chain, it is likely that pigs that are infected or potentially exposed would be transported to an export-registered abattoir.

If this results in the abattoir closing, even for a few weeks, piggeries may need to euthanise large numbers of healthy pigs on disease-free farms for welfare reasons, due to the inability to move pigs to an abattoir and very limited spare holding capacity on farms. There is insufficient capacity in the processing industry to cater for additional interstate pigs, even if there were no controls prohibiting such movement. Similar circumstances were experienced in the United States when COVID-19 restrictions and infection of staff led to the closing of abattoirs.

The **AUSVETPLAN response strategy *African swine fever*** aims to ensure rapid control of an outbreak while minimising the impacts of the incursion and control measures. These impacts may arise due to (AHA 2022a):

- movement controls
- abattoir closures
- reduced domestic demand for pork products, especially fresh pork
- loss of international markets
- international and national product recalls
- morbidity and mortality from ASF infection.

With 92% of Australian-produced pig meat consumed locally, reduced domestic supply of, or demand for, pork products during an ASF incursion is a significant threat to the industry. Although ASF and meat contaminated with ASF virus pose no threat to human health, Australian Pork Limited estimates that domestic consumer demand for pork may decrease by as much as 25% after an ASF incursion (ACIL Allen Consulting 2019).

In part, the reduced demand may be caused by:

- perceived human health risk, despite assurances to the contrary from public health experts
- concerns about the wholesomeness of pork
- voluntary retail-level withdrawal or recalls of affected product
- media coverage of depopulation of infected pig farms
- reduced availability of fresh pork
- higher pork prices
- perceived animal welfare concerns about the euthanasia of healthy pigs, culled due to lack of processing availability or reduced demand for pork.

4. Risk of African swine fever-contaminated product

ASF only affects pigs; it is not harmful to other livestock or pet species, or to humans.

ASFV is capable of remaining viable in meat, bone, hides (pigs' ears), offals, hair, effluent, blood, viscera and gut contents. The likelihood of ASFV contamination in various pig products is provided in Table 4.1.

ASF can be spread by feeding products and byproducts contaminated with the virus (feeding of prohibited pig feed, also known as swill feeding) to pigs. This is the most important potential pathway of transmission for contaminated product and byproduct from slaughtered pigs.

Table 4.1 Likelihood of ASFV in products, byproducts and discharges from ASF-infected animals in meat processing enterprises

Product or byproduct	Likelihood
Bone-in meat	✓
Deboned meat	✓
Skin	✓
Offal — red and green ⁶	✓
Nervous tissue	✗
Effluent — yards and slaughter floor	✓
Rendered meat, blood and bone meal ⁷	✗
Manure, paunch and visceral contents	✓

✓ = likelihood; ✗ = no known likelihood

Source: AHA (2022b)

4.1. Slaughter floor

There is no risk to worker health in processing ASF-infected pigs.

Due to the design and procedures used in export slaughter floors, the virus is unlikely to be spread between carcasses. This is achieved through handwashing, sanitising knives and saws, and eliminating common contact points before carcass inspection, in accordance with the Australian Standard for the Hygienic Production and Transportation of Meat and Meat Products for Human Consumption (AS 4696:2023). The standard includes requirements for handwashing, and that facilities for sanitising implements such as knives must provide hot water at no less than 82 °C, or

⁶ Red offal includes the heart, liver, kidneys, spleen, tongue, tongue root, lungs, pancreas, diaphragm, flare fat, caul fat, snout, ears, fail, trotters and heat. Green offal is derived from the digestive tract.

⁷ Assumes rendering certified to the Australian Standard for Hygienic Rendering of Animal Products (AS 5008:2007).

a science-based equivalent method. The effectiveness of these methods in reducing microbial load is supported by various publications, including Australian work by Goulter et al 2008.

4.2. Boning rooms

There is no risk to the health of boning room workers.

Boning rooms are unlikely to be involved because carcasses that do not pass postmortem inspection on the slaughter floor are unlikely to be boned. In the unlikely event that contaminated carcasses are boned, there may be spread of virus to virus-free meat that is cut up and boned following boning of the contaminated carcass. This spread would be via cutting boards, equipment, conveyor belts and other common contact points.

4.3. Offal and byproduct

Unlike carcasses, offal and byproduct are aggregated (ie no longer identifiable to farm of origin) once they pass the postmortem inspection point, and there are many common contact points during processing. Consequently, offal and byproduct produced after an infected carcass has been processed — and until a wash-down has been conducted — may be contaminated.

4.4. Rendering

Feeding mammalian materials (including pork products) to pigs is regulated in all states and territories under prohibited pig feed (swill feeding) legislation. The national definition of prohibited pig feed provides minimum standards for mammalian materials fed to pigs, requiring cooking to ensure a core temperature of at least 100 °C for 30 minutes or rendering according to the Australian Standard for Hygienic Rendering of Animal Products (AS 5008:2007).

Certified rendering in Australia will inactivate ASFV.

5. Minimising the risk of African swine fever transmission

Strategies to minimise the risk of ASF transmission through contaminated products and byproducts from abattoirs and/or associated onsite boning rooms that are IP or DCPFs include:

- fitness for the intended journey
- ante- and postmortem inspection
- tracing of products and byproducts
- prohibited pig feed legislation
- testing suspected product and byproduct
- domestic recall of product and byproduct
- staff training on disease recognition and biosecurity.

5.1. Fitness for the intended journey

In accordance with the nationally agreed *Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock*, all pigs transported in Australia must be selected, inspected and assessed as fit for the intended journey (AHA 2012). This responsibility is shared by the consignor and transporter.

This ensures the suitability of pigs for loading and transport and provides a reliable process that will preclude the transport of visibly diseased pigs to an abattoir.

5.2. Ante- and postmortem inspection

All pigs arriving at export-registered abattoirs are examined by qualified antemortem inspectors and assessed for suitability for slaughter. These inspectors are trained in the clinical signs of major emergency animal diseases (EADs), including ASF.

On-plant veterinarians employed by the Australian Government at export abattoirs examine all diseased pigs before completing an antemortem card. Pigs with abnormal clinical signs, especially pigs with signs consistent with an EAD, are not approved for slaughter and are reported. At export abattoirs, animals and carcasses with clinical signs consistent with an EAD are routinely sampled for testing to confirm or rule out infection.

At postmortem, qualified meat inspectors examine the head, viscera and carcass of each pig. Inspectors are trained to remain aware of the signs of various clinical and postmortem presentations of ASFV.

The combination of ante- and postmortem examination provides a reliable process that will reduce the likelihood:

- of diseased pigs being processed
- that meat from infected pigs will enter the human food chain.

5.3. Tracing of product and byproduct

The **AUSVETPLAN guidance document *Tracing and surveillance*** defines tracing as the gathering of information on movements during a defined period of animals, commodities and other things capable of spreading the disease agent to and from affected premises, to identify potential spread and a putative source of the outbreak.

The Department of Agriculture, Fisheries and Forestry conducts tracing of export product and recalls as required in line with expectations from the World Organisation for Animal Health, World Trade Organization and importing country. Export of pork products via the supermarket trade to some Pacific Island nations may also be affected. While these generally depart as mixed grocery lines, the department traces any pork products with insufficient thermal processing (eg bacon) to manage the risk to countries' disease-free status.

Jurisdictional officers, supported by abattoir personnel, would be in tracing products destined for the domestic market.

Products that must be considered for tracing purposes include:

- animal products, including meat (chilled, frozen, bone-in, boneless), offal (red and green), pet meat, skins, hides, and other porcine products (pharmaceuticals, blood, ears, hair)
- paunch screenings, manure and fertilisers
- render material sent offsite for processing
- biological specimens, including for schools and universities
- casings
- in-contact wrappers and cartons
- wastes and effluent.

Due to the risk of cross-contamination, tracing may need to include product that was in contact with suspected product at a boning room.

The period of interest for tracing products from an abattoir relates to when infected pigs first arrived at the abattoir, not the date that ASF was first detected or diagnosed on the source farm.

Consideration needs to be given to animals that may have been shipped to the abattoir before detection on the source farm. However, if those pigs show no signs of illness or infection and pass ante- and postmortem inspections, the likelihood of virus in the meat is lowered and the justification for domestic recall is diminished. If a product recall is deemed critical to manage the risk of disease spread, then, subject to risk assessment, the amount of product that may be required to be managed may be less than all product originating from the source farm from the date of disease entry.

5.4. Laboratory testing of suspected product and byproduct

Animals and carcasses with clinical signs consistent with ASF at abattoirs can be sampled for testing to confirm or rule out infection. Animals and product tested must be held and isolated onsite until test results are finalised.

Laboratory diagnostics may also be used to determine the status of products that have been traced and are suspected to be contaminated with ASFV.

5.5. Management of contaminated or potentially contaminated products and byproducts at an abattoir

All potentially contaminated or cross-contaminated product that has not left an abattoir will be managed according to the Animal Health Committee (AHC) abattoir ASF policy and matrix on management of product at an abattoir. See also the **AUSVETPLAN resource document *African swine fever response operational guidelines for pig abattoirs***.

5.6. Prohibited pig feed controls

All Australian jurisdictions have legislation to address the risk of disease transmission through the feeding of mammalian material to pigs. Communication, engagement and compliance strategies are in place.

During an outbreak, heightened prohibited pig feeding controls including prevention, assurance and enforcement activities will be required. These activities further reduce the likelihood of ASFV transmission through contaminated products and byproducts.

5.7. Staff training, education and competency

Workers should be provided with training and information about:

- disease recognition
- good biosecurity practices
- what to do if they detect pigs, viscera or carcasses with abnormal signs.

All inspectors should undertake yearly refresher training on ASF. An online training course hosted by MINTRAC (the National Meat Industry Training Advisory Council Limited) is available at www.mintrac.com.au/page.asp?p=178.

6. Domestic recall — factors for consideration

The decision to initiate a product recall is complex and must take into consideration many factors. The decision will be made by government in consultation with industry and other relevant stakeholders. ASF does not have public health implications. The likelihood (and therefore, the transmission risk) of abattoir products coming into contact with susceptible species would not be greatly diminished by a broad-scale product recall, assuming prohibited pig feed legislation is followed and byproduct treatment regimes, such as rendering, are compliant.

As all pigs undergo ante- and postmortem inspection by qualified inspectors, carcasses that pass this examination do not represent a significant likelihood for ASF transmission and spread of the virus to nonaffected areas of the country. Recalls for product that has left the abattoir is not the default position but should be based on a risk assessment conducted at the time, dependent on the specifics of the outbreak.

Food Standards Australia New Zealand (FSANZ) is the statutory authority in Australia and New Zealand that coordinates and monitors food recalls in Australia, under state and territory food safety legislation. These food recalls are to ensure consumer safety for issues such as microbiological contamination, residues, allergens, chemical contamination, foreign bodies and incorrect labelling.

According to FSANZ, food recalls can be at the trade or consumer level:

- A consumer recall is the most extensive type, recovering the food from all points in the production and distribution chain, including from consumers.
- A trade recall recovers food that has not been sold directly to consumers. It involves recovering the product from distribution centres and wholesalers, and may also include hospitals, restaurants or other catering establishments.

As ASF does not have public health implications, if a recall was determined necessary in the event of an ASF incursion, it is unlikely to be undertaken under FSANZ mechanisms.

There are advantages and disadvantages of recalling ASF-affected product from domestic markets. These are outlined in Table 6.1.

Table 6.1 Factors to consider when recalling ASF-affected product from domestic markets

Advantages	Disadvantages
Reduces the amount of known or suspected ASF-contaminated product and byproduct in the food chain and reduces the risk of new infections from feeding of prohibited pig feed.	Efficiency of recalls is low given much of the pork entering the domestic market is fresh and consumed quickly, with the bulk being consumed in cities where swill feeding is unlikely. Carcasses are likely to be the only product able to be recalled efficiently and in a timely manner in a response.
Reduces the risk of adverse media publicity relating to the sale of affected product in the marketplace.	May give consumers the false impression that there is something wrong with the product, resulting in reduced demand for pork.
Cost of recalling product may be low relative to the overall cost of disease incursions.	Consequential losses due to reduced domestic demand for product may be high.
-	The cost to industry of reduced domestic demand could exceed the potential gains of improved export market access.
-	Upon hearing of a consumer recall, some consumers may dispose of affected product in the garbage, which could increase ASF exposure to feral pigs, especially in regional areas.

If an abattoir was declared as a DCPF or an IP, transported product and byproduct suspected of being contaminated with ASFV would need to be traced and managed based on risk.

Information from investigations about the status of the source premises at the time the pigs were transported to the abattoir would allow more complete identification of consignments of animals that were potentially viraemic at the time of slaughter. Unaffected lots may not need to be assessed further, providing cross-contamination through the boning process did not occur. Product and byproduct that are suspected, but not confirmed, of being contaminated would need to be managed based on risk.

Carcase condemnation records, interviews with meat inspectors and on-plant veterinarians, results of any testing of suspected cases at the abattoir, and information about the clinical signs associated with the virus would contribute to the assessment of the likelihood that clinical pigs would have been detected if present.

If there is a high level of confidence that the consignment is free from infection, further tracing of product offsite may not be required, as long as cross-contamination during the boning process did not occur.

If there are concerns about the ability to detect infected animals at ante- and postmortem inspection, product and byproduct should be traced.

Decisions about whether to initiate a product recall are complex and would need to balance the disease risks with socioeconomic and legal risks, as well as operational considerations. Table 6.2 contains factors included within this document that may be considered in this decision-making process.

Table 6.2 Decision tool to help identify likely ASF-affected products that should be recalled from domestic markets

Factor for consideration	Evidence to support decision	Result that favours product recall	Result that does not favour product recall
Status of source premises at time of transportation to slaughter	Epidemiological investigation of premises, tracing records, local control centre records	Premises likely to have been a high transmission risk	Premises unlikely to have been a high transmission risk
Likelihood of detecting ASF during ante- and postmortem inspection	Condemnation records, interviews with inspector and on-plant veterinarian, diagnostic testing results	Low confidence	High confidence
Likelihood of cross-contamination of product at the abattoir	An ASF-affected lot was slaughtered before a disease-free lot	If disease-free product was boned after an ASF-affected lot	If disease-free product remained in carcass form
Traceability of product (postmortem)	Tracing report	Good traceability (eg carcasses)	Poor traceability
Type and treatment of product	Processor records	Other product	Rendered product
Confidence in swill feeding compliance	Value judgment, awareness and compliance	Uncertain or low confidence	High confidence
Cost of compensation for recalled product	Volume of product from abattoir records and Emergency Animal Disease Response Plan	Low cost	High cost
Consequential loss and liability associated with recall	Industry advice	Low cost and risk	High cost and risk
Effect of public opinion on safety/desirability of pork	Value judgement, interviews	Limited to no effect	High or uncertain effect

6.1. Policy recommendations

- Tracing of potentially contaminated product is recommended to inform decision making.
- Products/byproducts from a pig that has passed ante- and postmortem inspection at an export-registered abattoir are less likely to be a source of ASF transmission.
- A product recall of only whole carcasses would be implemented under exceptional circumstances when, after risk assessment, it is determined critical to manage the risk of transmission, and that the benefits outweigh the socioeconomic costs.

The basis for the policy recommendations involved consideration of several factors, including the:

- clinical and postmortem presentation of an ASF-infected cohort of animals with a virulent strain⁸
- likely significant intraherd prevalence of an infected herd
- likely minimal timeframe, if any, of virus shedding before the expression of clinical signs⁸
- pathogen not posing a human health risk
- high sensitivity of ante- and postmortem inspection procedures at export abattoirs leading to a low likelihood of clinically affected ASFV pigs not being detected or condemned during ante- and postmortem inspection
- feasibility of recalling product and byproduct, with consideration to timeliness, efficiency, cost, and the balance of transmission risk managed against other risks created in doing so. Whole carcasses are likely to be the only product able to be recalled efficiently and in a timely manner.

⁸ Note: Reliance on detectability through clinical signs and post mortem presentation along with assumptions around viral shedding from infected animals will be less relevant in the advent of infection with lower virulent strain.

7. African swine fever key messages for export abattoirs — product tracing and recall

If an export-registered abattoir is identified as an IP or a DCPF, the policy recommendation to manage risks posed by pig products and byproducts that have already been moved from the abattoir includes that:

- ASFV is not a human health risk
- tracing of potentially contaminated product is recommended to inform decision making
- products and byproducts from a pig that has passed ante- and postmortem inspection at an export-registered abattoir are unlikely to be a source of transmission of ASFV
- products and byproducts from an export-registered abattoir will be traced but not necessarily recalled if there is suspicion or knowledge that the product is contaminated by ASFV
- a product recall would only be implemented exceptionally when, after risk assessment by authorised government authorities, it is deemed critical to manage the risk of disease spread and that the benefits would outweigh the costs
- products and byproducts held at abattoir or cold store facilities at the time an abattoir is determined to have received or been contaminated by ASF-positive pigs will be subject to risk assessment before movement.

Strategies that help export abattoirs minimise the risk of ASF transmission include:

- ante- and postmortem inspection
- testing of suspected product and byproduct
- tracing systems for product and byproduct
- recall policy for product and byproduct
- prohibited pig feed controls
- staff training on disease recognition and biosecurity practices.

ASF only affects pigs; it is not harmful to humans, pets or other livestock.

Operators:

- should ensure staff are trained to recognise and report emergency animal diseases
- must remain vigilant with ante- and postmortem inspections
- must maintain current recall policy and tracing systems.

If you suspect an unusual or emergency disease, contact the Emergency Animal Disease Hotline on 1800 675 888.

AUSVETPLAN glossary

Standard AUSVETPLAN terms

Term	Definition
Animal byproducts	Products of animal origin that are not for consumption but are destined for industrial use (eg hides and skins, fur, wool, hair, feathers, hooves, bones, fertiliser).
Animal Health Committee	A committee whose members are the chief veterinary officers of the Commonwealth, states and territories, along with representatives from the CSIRO Australian Centre for Disease Preparedness (CSIRO-ACDP) and the Australian Government Department of Agriculture, Fisheries and Forestry. There are also observers from Animal Health Australia, Wildlife Health Australia, and the New Zealand Ministry for Primary Industries. The committee provides advice to the National Biosecurity Committee on animal health matters, focusing on technical issues and regulatory policy. <i>See also</i> National Biosecurity Committee
Animal products	Meat, meat products and other products of animal origin (eg eggs, milk) for human consumption or for use in animal feed.
Approved disposal site (ADS)	A premises that has zero susceptible animals and has been approved as a disposal site for animal carcasses, or potentially contaminated animal products, wastes or things.
Approved processing facility (APF)	An abattoir, knackery, milk or egg processing plant or other such facility that maintains increased biosecurity standards. Such a facility could have animals or animal products introduced from lower-risk premises under a permit for processing to an approved standard.
Assessed negative (AN)	A qualifier that may be applied to at-risk premises, premises of relevance and premises previously defined as suspect premises, trace premises, dangerous contact premises or dangerous contact processing facilities that have undergone an epidemiological and/or laboratory assessment and have been cleared of suspicion at the time of classification, and can progress to another status.
At-risk premises (ARP)	A premises in a restricted area that contains one or more live susceptible animals but is not considered at the time of classification to be an infected premises, dangerous contact premises, dangerous contact processing facility, suspect premises or trace premises.
Australian Chief Veterinary Officer	The nominated senior veterinarian in the Australian Government Department of Agriculture Fisheries and Forestry who manages international animal health commitments and the Australian Government's response to an animal disease outbreak. <i>See also</i> Chief veterinary officer
AUSVETPLAN	Australian Veterinary Emergency Plan. A series of technical response plans that describe the proposed Australian approach to

Term	Definition
	an emergency animal disease incident. The documents provide guidance based on sound analysis, linking policy, strategies, implementation, coordination and emergency-management plans.
Carcase	The body of an animal slaughtered for food.
Carcass	The body of an animal that died in the field.
Chief veterinary officer (CVO)	The senior veterinarian of the animal health authority in each jurisdiction (national, state or territory) who has responsibility for animal disease control in that jurisdiction. <i>See also</i> Australian Chief Veterinary Officer
Compartmentalisation	The process of defining, implementing and maintaining one or more disease-free establishments under a common biosecurity management system in accordance with World Organisation for Animal Health (WOAH) guidelines, based on applied biosecurity measures and surveillance, to facilitate disease control and/or trade.
Compensation	The sum of money paid by government to an owner for livestock or property that are destroyed for the purpose of eradication or prevention of the spread of an emergency animal disease, and livestock that have died of the emergency animal disease. <i>See also</i> Cost-sharing arrangements, Emergency Animal Disease Response Agreement
Consultative Committee on Emergency Animal Diseases (CCEAD)	The key technical coordinating body for animal health emergencies. Members are state and territory chief veterinary officers, representatives of CSIRO-ACDP and the relevant industries, and the Australian Chief Veterinary Officer as chair.
Control area (CA)	A legally declared area that acts as a disease-free buffer ⁹ between the restricted area and the outside area (the limits of a control area and the conditions applying to it can be varied during an incident according to need) where the disease controls and movement controls applied are of lesser intensity than those in a restricted area.
Cost-sharing arrangements	Arrangements agreed between governments (national and states and territories) and livestock industries for sharing the costs of emergency animal disease responses. <i>See also</i> Compensation, Emergency Animal Disease Response Agreement
Dangerous contact animal	A susceptible animal that has been designated as being exposed to other infected animals or potentially infectious products following tracing and epidemiological investigation.
Dangerous contact premises (DCP)	A premises, apart from an abattoir, knackery or milk or egg processing plant (or other such facility) that, after investigation and based on a risk assessment, is considered to contain one or more susceptible animals not showing clinical signs, but is considered highly likely to contain one or more infected animals

⁹ The use of the term 'disease free' implies that disease is not known to occur within the geographic area described by the CA.

Term	Definition
	and/or contaminated animal products, wastes or things, and that requires action to address the risk
Dangerous contact processing facility (DCPF)	An abattoir, knackery, milk or egg processing plant or other such facility that, based on a risk assessment, appears highly likely to have received infected animals, or contaminated animal products, wastes or things, and that requires action to address the risk.
Declared area	A defined tract of land that is subjected to disease control restrictions under emergency animal disease legislation. There are two types of declared areas: restricted area and control area.
Decontamination	Includes all stages of cleaning and disinfection.
Depopulation	The removal of a host population from a specified area to control or prevent the spread of disease.
Destroy (animals)	To kill animals humanely.
Disease agent	A general term for a transmissible organism or other factor that causes an infectious disease.
Disinfectant	A chemical used to destroy disease agents outside a living animal.
Disinfection	The application, after thorough cleansing, of procedures intended to destroy the infectious or parasitic agents of animal diseases, including zoonoses; applies to premises, vehicles and different objects that may have been directly or indirectly contaminated.
Disinsection	The destruction of insect pests, usually with a chemical agent.
Disposal	Sanitary removal of animal carcasses, animal products, materials and wastes by burial, burning or some other process so as to prevent the spread of disease.
Emergency animal disease	A disease that is (a) exotic to Australia or (b) a variant of an endemic disease or (c) a serious infectious disease of unknown or uncertain cause or (d) a severe outbreak of a known endemic disease, and that is considered to be of national significance with serious social or trade implications. <i>See also</i> Endemic animal disease, Exotic animal disease
Emergency Animal Disease Hotline	24-hour freecall service for reporting suspected incidences of exotic diseases — 1800 675 888.
Emergency Animal Disease Response Agreement	Agreement between the Australian, state and territory governments and livestock industries on the management of emergency animal disease responses. Provisions include participatory decision making, risk management, cost sharing, the use of appropriately trained personnel and existing standards such as AUSVETPLAN. <i>See also</i> Compensation, Cost-sharing arrangements
Endemic animal disease	A disease affecting animals (which may include humans) that is known to occur in Australia. <i>See also</i> Emergency animal disease, Exotic animal disease
Enterprise	<i>See</i> Risk enterprise

Term	Definition
Enzyme-linked immunosorbent assay (ELISA)	A serological test designed to detect and measure the presence of antibody or antigen in a sample. The test uses an enzyme reaction with a substrate to produce a colour change when antigen-antibody binding occurs.
Epidemiological investigation	An investigation to identify and qualify the risk factors associated with the disease. <i>See also</i> Veterinary investigation
Epidemiological unit	In the context of infectious disease, an epidemiological unit is a unit which shares the same likelihood of exposure to a pathogen. ¹⁰ For the purposes of AUSVETPLAN premises classifications, an epidemiological unit can be defined as a discrete area encompassing all, or part, of a premises, within which control measures can be applied to achieve disease control outcomes.
Epidemiology	The study of disease in populations and of factors that determine its occurrence.
Exotic animal disease	A disease affecting animals (which may include humans) that does not normally occur in Australia. <i>See also</i> Emergency animal disease, Endemic animal disease
Exotic fauna/feral animals	<i>See</i> Wild animals
Feeding prohibited pig feed	Also known as 'swill feeding', it includes: <ul style="list-style-type: none"> • feeding, or allowing or directing another person to feed, prohibited pig feed to a pig • allowing a pig to have access to prohibited pig feed • the collection and storage or possession of prohibited pig feed on a premises where one or more pigs are kept • supplying to another person prohibited pig feed that the supplier knows is for feeding to any pig. This definition was endorsed by the Agriculture Ministers' Council through AGMIN OOS 04/2014.
Fomites	Inanimate objects (eg boots, clothing, equipment, instruments, vehicles, crates, packaging) that can carry an infectious disease agent and may spread the disease through mechanical transmission.
General permit	A legal document that describes the requirements for movement of an animal (or group of animals), commodity or thing, for which permission may be granted without the need for direct interaction between the person moving the animal(s), commodity or thing and a government veterinarian or inspector. The permit may be completed via a webpage or in an approved place (such as a government office or commercial premises). A printed version

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www.woah.org/fileadmin/Home/eng/Health_standards/tahc/2018/en_glossaire.htm#terme_unite_epidemiologie

Term	Definition
	of the permit must accompany the movement. The permit may impose preconditions and/or restrictions on movements. <i>See also</i> Special permit
In-contact animals	Animals that have had close contact with infected animals, such as noninfected animals in the same group as infected animals.
Incubation period	The period that elapses between the introduction of the pathogen into the animal and the first clinical signs of the disease.
Index case	The first case of the disease to be diagnosed in a disease outbreak. <i>See also</i> Index property
Index property	The property on which the index case is found. <i>See also</i> Index case
Infected area	An area on which wild/feral animals meeting the case definition are or were present, or the causative agent of the emergency animal disease is present, or there is a reasonable suspicion that either is present, and that the relevant chief veterinary officer or their delegate has determined to be an infected area. The area may be subject to wild/feral animal disease controls, including, as necessary, destruction, disposal and decontamination activities, vaccination, intense surveillance and movement controls.
Infected premises (IP)	A premises on which animals meeting the case definition are or the causative agent of the emergency animal disease is present, or there is a reasonable suspicion that either is present, and that the relevant chief veterinary officer or their delegate has declared to be an infected premises.
Local control centre (LCC)	An emergency operations centre responsible for the command and control of field operations in a defined area.
Monitoring	Routine collection of data for assessing the health status of a population or the level of contamination of a site for remediation purposes. <i>See also</i> Surveillance
Movement control	Restrictions placed on the movement of animals, people and other things to prevent the spread of disease.
National Biosecurity Committee (NBC)	A committee that was formally established under the Intergovernmental Agreement on Biosecurity (IGAB). The IGAB was signed on 13 January 2012, and signatories include all states and territories except Tasmania. The committee provides advice to the Agriculture Senior Officials Committee and the Agriculture Ministers' Forum on national biosecurity issues, and on the IGAB.
National management group (NMG)	A group established to approve (or not approve) the invoking of cost sharing under the Emergency Animal Disease Response Agreement. NMG members are the Secretary of the Australian Government Department of Agriculture, Fisheries and Forestry as chair, the chief executive officers of the state and territory government parties, and the president (or analogous officer) of each of the relevant industry parties.
Native wildlife	<i>See</i> Wild animals

Term	Definition
Operational procedures	Detailed instructions for carrying out specific disease control activities, such as disposal, destruction, decontamination and valuation.
Outside area (OA)	The area of Australia outside the restricted and control areas.
Owner	Person responsible for a premises (includes an agent of the owner, such as a manager or other controlling officer).
Polymerase chain reaction (PCR)	A method of amplifying and analysing DNA sequences that can be used to detect the presence of viral DNA.
Premises	<p>A geographically defined tract of land including its buildings. A premises may be represented geospatially (eg on maps) as a polygon for whole or parts of a property, or as a centroid to identify the entire property.</p> <p>A premises may be part of, or an entire property.</p> <p>Premises with a case number are assigned a premises classification for disease control management and monitoring purposes. As such, a premises is an 'epidemiological unit' for disease control purposes. A premises can also be a separate epidemiological unit internal of a land parcel in some circumstances.</p> <p>On an exceptional basis and subject to a risk assessment, a property may be divided into multiple, discrete biosecure epidemiological units. These units may then be reclassified as separate premises for disease control purposes.</p> <p>An epidemiological unit may define the extent of the premises.</p>
Premises of relevance (POR)	A premises in a control area that contains one or more live susceptible animals but is not considered at the time of classification to be an infected premises, dangerous contact premises, dangerous contact processing facility, suspect premises or trace premises.
Premises with susceptible species (PSS)	A premises in the outside area that contains one or more live susceptible animals or other units of interest, but is not considered at the time of classification to be an infected premises, dangerous contact premises, dangerous contact processing facility, suspect premises or trace premises.
Prevalence	The proportion (or percentage) of animals in a particular population affected by a particular disease (or infection or positive antibody titre) at a given point in time.
Prohibited pig feed	<p>Also referred to as 'swill'.</p> <p>Material of mammalian origin, or any substance that has come in contact with this material, but does not include:</p> <p>(i) milk, milk products or milk byproducts either of Australian provenance or legally imported for stockfeed use into Australia</p>

Term	Definition
	<p>(ii) material containing flesh, bones, blood, offal or mammal carcasses which is treated by an approved process¹</p> <p>(iii) a carcass or part of a domestic pig, born and raised on the property on which the pig or pigs that are administered the part are held, that is administered for therapeutic purposes in accordance with the written instructions of a veterinary practitioner</p> <p>(iv) material used under an individual and defined-period permit issued by a jurisdiction for the purposes of research or baiting.</p> <p>¹ In terms of (ii), approved processes are:</p> <ol style="list-style-type: none"> 1. rendering in accordance with the Australian Standard for the Hygienic Rendering of Animal Products 2. under jurisdictional permit, cooking processes subject to compliance verification that ensure that a core temperature of at least 100 °C for a minimum of 30 minutes, or equivalent, has been reached 3. treatment of cooking oil, which has been used for cooking in Australia, in accordance with the National Standard for Recycling of Used Cooking Fats and Oils intended for Animal Feeds 4. under jurisdictional permit, any other nationally agreed process approved by the Animal Health Committee for which an acceptable risk assessment has been undertaken and that is subject to compliance verification. <p>The national definition is a minimum standard. Some jurisdictions have additional conditions for feeding of prohibited pig feed that pig producers in those jurisdictions must comply with, over and above the requirements of the national definition.</p>
Qualifiers	
— assessed negative	Assessed negative (AN) is a qualifier that may be applied to premises previously defined as SPs, TPs, DCPs or DCPFs. The qualifier may be applied following surveillance, epidemiological investigation, and/or laboratory assessment/diagnostic testing, and indicates that the premises is assessed as negative at the time of classification.
— sentinels on site	Sentinels on site (SN) is a qualifier that may be applied to IPs and DCPs to indicate that sentinel animals are present on the premises as part of response activities (ie before it can be assessed as an RP).
— vaccinated	The vaccinated (VN) qualifier can be applied in a number of different ways. At its most basic level, it can be used to identify premises that contain susceptible animals that have been vaccinated against the EAD in question. However, depending on the legislation, objectives and processes within a jurisdiction, the VN qualifier may be used to track a range of criteria and parameters.

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

Term	Definition
	accompany the movement. The permit may impose preconditions and/or restrictions on movements. <i>See also</i> General permit
Specificity	The proportion of truly negative units that are correctly identified as negative by a test. <i>See also</i> Sensitivity
Stamping out	The strategy of eliminating infection from premises through the destruction of animals in accordance with the particular AUSVETPLAN manual, and in a manner that permits appropriate disposal of carcasses and decontamination of the site.
State coordination centre (SCC)	The emergency operations centre that directs the disease control operations to be undertaken in that state or territory.
Surveillance	A systematic program of investigation designed to establish the presence, extent or absence of a disease, or of infection or contamination with the causative organism. It includes the examination of animals for clinical signs, antibodies or the causative organism.
Susceptible animals	Animals that can be infected with a particular disease.
Surveillance area	A geographically defined area in which animals are subject to intensive surveillance for the purposes of early detection of, or proof of freedom from EADs, It may or may not be legally declared, and may be used for disease control purposes in some jurisdictions.
Suspect animal	An animal that may have been exposed to an emergency disease such that its quarantine and intensive surveillance, but not pre-emptive slaughter, is warranted. <i>or</i> An animal not known to have been exposed to a disease agent but showing clinical signs requiring differential diagnosis.
Suspect premises (SP)	Temporary classification of a premises that contains a susceptible animal(s) not known to have been exposed to the disease agent but showing clinical signs similar to the case definition, and that therefore requires investigation(s).
Swill	<i>See</i> Prohibited pig feed
Swill feeding	<i>See</i> Feeding prohibited pig feed
Trace premises (TP)	Interim classification of a premises that tracing indicates may have susceptible animals that have been exposed to the disease agent, or contains potentially contaminated animal products, wastes or things, and that requires investigation.
Tracing	The process of locating animals, persons or other items that may be implicated in the spread of disease, so that appropriate action can be taken.
Transmission area	An area, not usually legally declared, that is used for vectorborne diseases for epidemiological purposes, recognising that vectors are not confined by property boundaries.

Term	Definition
Unclassified processing facility (UPF)	An abattoir, knackery, milk or egg processing plant or other such facility where the current presence of susceptible animals and/or risk products, wastes or things is unknown.
Units of interest	Units of interest may require classification commensurate with the needs of a response and may include: <ul style="list-style-type: none"> • transporters and, transport depots where trucks carrying potentially infected stock and animal products are stored, or through which livestock may transiently move • milk tankers • veterinarians, and other personnel of specific interest that move between properties.
Unknown status premises (UP)	A premises where the current presence of susceptible animals and/or risk products, wastes or things is unknown.
Vaccination	Inoculation of individuals with a vaccine to provide active immunity.
Vaccine	A substance used to stimulate immunity against one or several disease-causing agents to provide protection or to reduce the effects of the disease. A vaccine is prepared from the causative agent of a disease, its products or a synthetic substitute, which is treated to act as an antigen without inducing the disease.
— adjuvanted	A vaccine in which one or several disease-causing agents are combined with an adjuvant (a substance that increases the immune response).
— attenuated	A vaccine prepared from infective or 'live' microbes that are less pathogenic but retain their ability to induce protective immunity.
— gene deleted	An attenuated or inactivated vaccine in which genes for non-essential surface glycoproteins have been removed by genetic engineering. This provides a useful immunological marker for the vaccine virus compared with the wild virus.
— inactivated	A vaccine prepared from a virus that has been inactivated ('killed') by chemical or physical treatment.
— recombinant	A vaccine produced from virus that has been genetically engineered to contain only selected genes, including those causing the immunogenic effect.
Vaccinated (VN)	A qualifier that may be used to identify premises that contain susceptible animals that have been vaccinated against the emergency animal disease in question.
Vaccination area	A geographically defined area in which emergency vaccination is applied for the purpose of EAD control. It may or may not be legally declared, and may be used for disease control purposes in some jurisdictions.
Vector	A living organism (frequently an arthropod) that transmits an infectious agent from one host to another. A <i>biological</i> vector is

Term	Definition
	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.
Veterinary investigation	An investigation of the diagnosis, pathology and epidemiology of the disease. <i>See also</i> Epidemiological investigation
Viraemia	The presence of viruses in the blood.
Wild animals	
— native wildlife	Animals that are indigenous to Australia and may be susceptible to emergency animal diseases (eg bats, dingoes, marsupials).
— feral animals	Animals of domestic species that are not confined or under control (eg cats, horses, pigs).
— exotic fauna	Nondomestic animal species that are not indigenous to Australia (eg foxes).
Wild animal management area	A geographically defined area in which wild animal management or control activities are conducted for the purpose of EAD control. It may or may not be legally declared, and may be used for disease control purposes in some jurisdictions.
WOAH Terrestrial Code	Describes standards for safe international trade in animals and animal products. Revised annually and published on the internet at: www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access .
WOAH Terrestrial Manual	WOAH Manual of diagnostic tests and vaccines for terrestrial animals. Describes standards for laboratory diagnostic tests, and the production and control of biological products (principally vaccines). The current edition is published on the internet at: www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-manual-online-access .
Wool	Sheep wool.
Zero susceptible species premises (ZP)	A premises that does not contain any susceptible animals.
Zoning	The process of defining, implementing and maintaining a disease-free or infected area in accordance with World Organisation for Animal Health (WOAH) guidelines, based on geopolitical and/or physical boundaries and surveillance, to facilitate disease control and/or trade.
Zoonosis	A disease of animals that can be transmitted to humans.

Standard AUSVETPLAN abbreviations/acronyms

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

Abbreviation/acronym	Full title
SpP	special permit
TA	transmission area
TP	trace premises
UP	unknown status premises
UPF	unclassified processing facility
VN	vaccinated
WOAH	World Organisation for Animal Health
ZP	zero susceptible species premises

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