



Foot-and-mouth disease: Frequently asked questions

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1. What is foot-and-mouth disease?

Foot-and-mouth disease (FMD) is a highly contagious viral disease that affects cloven-hoofed (two-toed) animals including cattle, sheep, goats, pigs, buffalo, camels, alpaca, llama and deer. FMD does not affect people and it is not the same as [hand, foot and mouth disease](#).

Although many infected animals may survive FMD, they take a long time to recover and often do not regain their full productivity. Surviving animals may also become carriers of the virus which means they can transmit the virus but not show signs of disease.

2. Is FMD in Australia?

No, the last FMD outbreak in Australia was in 1872. In May 2022, an outbreak of FMD was reported in cattle in Indonesia which had been FMD-free since 1986.

3. How widespread is FMD?

FMD is widespread in Asia, Africa, some parts of Europe and South America. The World Organisation for Animal Health currently lists 65 countries with the same FMD-free status as Australia.

Some other countries have zones that are recognised as being free of the disease. See the [World Organisation for Animal Health FMD status map](#) for more details.

4. Which animals are affected by FMD?

Susceptible farm animals include cattle, buffalo, sheep, goats, pigs, alpaca, llamas, and deer.

5. Why is FMD such a serious problem?

FMD is a major animal health and production disease and is therefore a major consideration in international trade of livestock and their products. The disease can also create serious animal welfare issues in affected animals.

A FMD outbreak would severely impact Western Australia's access to livestock and livestock product export markets, worth about \$2 billion annually. It could lead to immediate closure of Australia's live animal, meat, and animal product export markets. Impacts have been estimated at more than \$80 billion dollars over 10 years which is mostly due to market access restrictions. Even an isolated, rapidly controlled outbreak could result in losses worth billions of dollars.

FMD may be felt well beyond agriculture including tourism, community spirit, and other social and environmental community impacts.

6. What are the signs of FMD?

Signs of FMD vary depending on the species infected and the strain of virus. Blisters

form in the mouth, nostrils, on teats, and on the skin between and above the hoofs of cloven-footed animals.

FMD results in significant weight loss, reducing productivity and may result in death in young animals and cause abortions. In sheep and goats, the signs are often mild and difficult to see - lameness may be the only visible sign.

Signs include:

- blisters (vesicles) in the mouth, nostrils, teats or on the feet. These blisters are often not obvious until they have ruptured. Blisters in sheep are usually small and difficult to see
- slobbering/drooling
- lameness or reluctance to move
- severe depression
- lack of appetite
- sudden death in young animals
- a large drop in milk yield in dairy animals
- abortion.

Animals usually show signs of FMD within 3–5 days of infection, but signs can take up to 14 days to appear. Infected animals spread the virus up to 4 days in milk and semen before they show signs of the disease.

7. How is FMD spread?

FMD is highly contagious. The virus is present in large amounts in the blisters, saliva, urine, manure, milk, and breath of infected animals.

The virus spreads between animals by:

- direct contact with an infected animal
- airborne particles from infected animals
- movement of infected animals
- movement of contaminated animal products (such as wool or manure), vehicles, equipment, and people.

The virus can remain viable in the environment for several weeks, especially in cool, damp environmental conditions. Low humidity, high temperatures and acidic soils help to inactivate the virus. Virus particles have been detected in the human nasal cavity 28 hours following exposure.

All livestock owners should have good biosecurity measures in place on their property, including accurate records of livestock movement. To access on-farm biosecurity advice and resources, visit the [Farm Biosecurity website](#).

8. Can feral animals spread FMD?

A 2013 report commissioned by [Wildlife Health Australia](#) found that feral animals are

unlikely to play a significant role in maintaining and spreading FMD in Australia. The only exception is water buffalo due to the potential for individuals to become long-term carriers of the disease.

A 2015 Australian [disease modelling study](#) finding was that if FMD is controlled in domestic livestock, it is likely to die out in feral pig populations without specific disease control measures being applied to feral pigs.

Disease control strategies in feral animal populations would be determined based on the specific circumstances of an outbreak, guided by the Wild Animal Response Strategy AUSVETPLAN Manual.

This may include reducing the likelihood of contact between feral and domestic animals, or feral animal population reduction under certain conditions. Some methods for population reduction can lead to dispersal of surviving animals which may spread disease to other locations.

The Northern Australia Quarantine Strategy program continues to undertake awareness-raising activities and surveillance for FMD in feral animal populations in northern areas of Australia to help detect any disease outbreaks early.

9. What should I do if I suspect FMD in my livestock?

Early disease detection is essential for successful disease control and eradication. Livestock producers must be alert for signs of the disease in their animals. The sooner FMD disease is recognised and reported, the sooner its spread can be controlled. If you see any signs of FMD in cloven-hoofed animals, call:

- your veterinarian
- your [DPIRD veterinarian](#), or
- the Emergency Animal Disease Watch Hotline on **1800 675 888**.

Minimising the spread of the disease through early detection and reporting will reduce the economic and social costs of an outbreak to livestock producers, livestock and regional industries, and the national economy.

10. Does FMD affect humans?

FMD infection in humans is very rare and does not result in a serious disease. There is a human condition known as [hand, foot and mouth disease](#) which is not related in any way to FMD of animals.

11. How could FMD be introduced into Western Australia?

The most likely way FMD could enter Australia is through the illegal importation of meat and dairy products that carry foot-and-mouth disease virus from an infected country, and the subsequent feeding of that to pigs.

Feeding food scraps or waste that contain meat, or have been in contact with meat, to pigs is termed prohibited pig feed (or swill) and is illegal in Australia. See DPIRD's [prohibited pig feed page](#) for more information on what can and can't be fed to pigs. Pigs are highly susceptible to FMD and can become infected if they eat products carrying the virus. Once infected, pigs produce large quantities of virus, which can spread to other livestock.

FMD could also enter Australia by people returning from infected countries with the virus on their footwear, clothing, or equipment, and then having contact with animals. FMD is endemic in several popular tourist destinations such as the south-east Asian region. It is particularly critical that footwear is thoroughly cleaned prior to leaving these countries and before arriving in Australia. On return from overseas travel, always declare food products and declare if you have been in a country where FMD is present.

12. How can I protect my livestock from FMD?

Livestock producers must be alert for signs of disease in their animals. If animals are showing signs of disease consistent with FMD, this needs to be reported urgently to the Emergency Animal Disease Watch Hotline on **1800 675 888** or to your local veterinarian.

To reduce the risk of FMD occurring in your animals:

- do not feed pigs anything that contains or has had contact with meat, meat products, or other products from mammals
- prevent feral pigs from accessing your property, or if not practicable, at least prevent them from accessing on-property disposal sites
- ensure visitors who have arrived from overseas wear clean clothes and disinfected shoes. Also ensure they do not have contact with Australian livestock for 7 days after arriving if they have been in an infected country, as per the 'incoming passenger card'
- If staff are travelling internationally to countries that have diseases such as FMD, businesses should implement biosecurity protocols to ensure staff who have had contact with livestock in these countries do not work with at-risk livestock for 7 days after their return.

Other standard biosecurity practices that will help to prevent the introduction of FMD and many other diseases include:

- isolating new animals for 7–10 days
- keeping fences secure to ensure stray animals do not enter
- allocating an area away from livestock where contractors/farm visitors park
- cleaning and disinfecting vehicles and footwear and changing outer clothes after visiting another farm, and before contact with your animals
- implementation of a stand-down period between animal contact on different properties. The duration of time will depend on the species and the disease. Contact your local veterinarian for advice.

Protect your industry by reporting signs of disease early. If you see any signs of FMD:

- isolate the affected animal(s)
- do not move any livestock off your property

- call your private veterinarian, [DPIRD veterinarian](#), or the Emergency Animal Disease Hotline on **1800 675 888**.

Good biosecurity practices and early detection are essential to prepare for, and reduce, the potential impact of these diseases. Producers are urged to be vigilant by being aware of FMD and LSD symptoms and reviewing on-farm biosecurity plans.

- DPIRD provides useful biosecurity checklists for livestock producers. See the webpages: [Farm biosecurity checklist for sheep producers](#) and [Keep pigs healthy – follow the biosecurity checklist](#).
- The [Farm Biosecurity website](#) has a range of biosecurity planning resources to help you prepare an on-farm biosecurity plan and protect your business to survive an emergency animal disease outbreak.

Western Australia has a mandatory livestock ownership, identification, and movement system. There is also a legal responsibility to report signs consistent with FMD and other reportable diseases.

Traceability of infected or exposed livestock would be critical if an outbreak occurred in Australia, to control and eradicate the disease so DPIRD and industry know where animals are and who is responsible for them.

Producers should ensure their property and livestock registration details are up to date. This will help with effective and rapid communication in a biosecurity emergency response where urgent action is required.

Livestock owners should visit our [Livestock ownership, identification and movement in Western Australia webpage](#) to learn more about how to meet these requirements.

13. How can I stop FMD coming onto my property via vehicles or footwear?

Producers and allied industries should implement or update their farm biosecurity plans to help Australia remain FMD-free. Animal Health Australia's (AHA) [Farm Biosecurity site](#) covers all farm biosecurity measures and is the best means to protect against the entry of unwanted pests and diseases.

Consistent hygiene practices are important to reduce the likelihood of disease introduction onto your property. You should follow the recommendations for people and vehicles at [Farm Biosecurity - people, vehicles and equipment](#).

This means hands should be washed thoroughly with hot water and soap or household detergent. If hot soapy water is unavailable, a commercially available hand sanitiser should be used.

Footwear should be cleaned thoroughly using a brush and hot soapy water, including removing soil and manure from the treads. Using a broad-spectrum disinfectant after cleaning will further reduce the likelihood of introducing diseases onto your property. Footbaths may be considered as an additional measure. For more information on how to make and use a footbath visit [Farm Biosecurity - make your own footbath](#).

Vehicle tyres, undercarriages, grills, floors, and trays can carry pests and diseases in soil, plant material and manure. Vehicle wheels and undersides should be visibly clean before entering a farm. Vehicles used by visitors should be clean and parked in a

designated area away from livestock and crops.

To prevent the introduction of unwanted diseases onto your farm, in addition to the above, the following measures should be considered:

- Where appropriate, establish a vehicle high-pressure wash down facility well away from livestock and crops to clean vehicles and equipment that need to enter the property
- The wash down area should have a sump to collect wastewater
- Ensure runoff is directed away from livestock pens, paddocks, crops and waterways
- Use soap and water to clean machinery and any borrowed or second-hand vehicles
- Follow the wash down by applying a broad-spectrum disinfectant. Allow for the recommended contact time, then rinse with clean water
- Keep an up-to-date record of equipment and vehicle cleaning.

An effective farm biosecurity plan will address several other factors, such as:

- limiting the number of access points to the farm
- requiring people entering Australia from overseas to wait 7 days before entering a farm
- complying with livestock identification and traceability requirements
- using biosecurity signage.

Remember, footbaths can be part of an effective biosecurity plan but are insufficient on their own. To protect farm biosecurity, producers should address all risk factors. It is important to note that some disinfectants present risks to human health and safety. The permitted uses and efficacy of chemical products, together with information on occupational health and safety, are included in the product label. If in doubt, producers should seek advice from a veterinarian.

Information on chemicals that are approved for disease-control purposes can be found on the Australian Pesticides and Veterinary Medicines Authority (APVMA) [PubCRIS](#) website.

In the event of an FMD case in Australia, directions will be provided for the use of specific disinfectants that are approved for use against FMD virus. Information on these disinfectants can be found on the [APVMA Permits](#) database by searching for foot-and-mouth disease or PERMIT 83649.

14. What is being done to protect Australia from FMD?

Australia has detailed FMD response plans and arrangements in place. The [Australian Veterinary Emergency Plan \(AUSVETPLAN\)](#) contains government and industry pre-agreed response strategies to an incident. These plans are continually being reviewed to ensure Australia is prepared to effectively respond to an emergency animal disease incursion.

The Department of Agriculture, Fisheries and Forestry (DAFF) has suspended import permits for animal products from Indonesia that may carry FMD.

State and Territory Governments, the Commonwealth Government and livestock industry have worked together to increase awareness of the signs of FMD. They continue to work collaboratively to enhance the level of biosecurity and preparedness at a property, state and national level to detect disease and respond effectively in the event of a disease incursion.

Australia has a long-standing FMD vaccine bank located internationally, and vaccine is available for use if there is an incursion in Australia.

DPIRD and WA industry have established a preparedness task group which is looking at response arrangements and planning, traceability, and supply chain continuity to minimise the impact of disease if an incursion occurs.

15. What can I do to prevent FMD entering Western Australia?

Western Australians benefit from well-established state and national border, and post-border biosecurity systems. Biosecurity is everyone's responsibility, and we can all take action to reduce the risk of FMD entering WA.

If you are planning an overseas trip, make sure you know what you are [not allowed to bring back into Australia](#) and if in doubt, declare it at airport customs. DAFF has released a ['traveller and mail pathway intervention'](#) overview, which contains measures being implemented at the border to reduce the likelihood of disease introduction into Australia.

Travellers who have had contact with livestock or farms in infected countries need to declare this when arriving in Australia and ensure all footwear, clothing, and equipment are free of mud and animal manure. They should not have direct contact with livestock for 7 days after arrival.

Maintaining good biosecurity practices when you visit farms **anywhere** also reduces the chance of you bringing something unwanted back to WA. Cleaning boots, clothing, and equipment before having contact with your own animals, and other animals, are good habits to follow.

The UK outbreak in 2001 was most likely started by a farmer who fed his pigs meat food scraps/prohibited pig feed (swill), which included FMD-virus contaminated meat that had come from overseas. The feeding of prohibited pig feed is banned in Australia.

16. What would happen if an FMD outbreak occurred in Australia?

Commonwealth, State and Territory Governments and peak industry bodies are signatories to the national Emergency Animal Disease Response Agreement (EADRA).

This is a contractual arrangement between Australian governments and industry groups to collectively reduce the risk of disease incursions and manage a response if an outbreak occurs.

The EADRA commits all signatories to preparedness and early detection activities

including good on-property biosecurity, reporting suspicion of disease, and maintaining good traceability.

All signatories commit to participation in an EAD response and to help fund the eligible costs of responding to an EAD by which they are affected.

Australia's AUSVETPLAN contains the nationally agreed approach for responding to an outbreak of FMD in Australia. Government and industry signatories to the EADRA have agreed to a detailed contingency plan for responding to an outbreak of any of the major exotic animal diseases, including FMD. For full details see [AUSVETPLAN - Disease Strategies](#).

The national objective is to eradicate an incursion of FMD as quickly as possible. This nationally agreed policy of eradication would involve the depopulation of infected livestock, in addition to other response tools such as movement controls for livestock and associated products.

Following an FMD detection, movement controls to reduce the spread of disease would be immediately implemented in WA and may be applied to susceptible animals, animal products and by products, vehicles, and equipment. Vaccination will be considered as part of the response.

The time taken to control and eradicate the disease will depend on how long the virus has been present before it is detected and the degree of spread. If there is a small outbreak authorities may be able to contain and eradicate the disease quickly. If the disease has established and spread across a state or over borders, it will likely take much longer.

Early detection and reporting by everyone are critically important. More information is available on the [Animal Health Australia emergency response arrangements webpage](#) and the [Australian Government's national pest and disease outbreaks page](#).

17. Is there a vaccine for FMD?

There are vaccines available overseas but currently no vaccines registered for routine use in Australia. However, as part of FMD preparedness, Australia has a contract for the emergency supply of vaccine in the event of an outbreak with import and emergency use permits in place for the vaccine.

Visit the Australian Government's [national foot-and-mouth disease vaccination policy webpage](#) for more information.

18. Can I vaccinate my livestock now to help protect them from FMD?

Pre-emptive vaccination for FMD is currently not an option in Australia. There is no vaccine that is registered for routine use in Australia. Under existing trade rules, vaccinated animals may not meet importing country requirements for trade.

19. What role does traceability play during a FMD incursion?

In the event of an emergency animal disease incursion, for disease tracing and response planning purposes, it is essential DPIRD knows where susceptible animals are, their prior movements, and who is responsible for them.

Producers should ensure their livestock ownership registration details are up-to-date and National Livestock Identification System (NLIS) livestock transfers are current.

20. Will I receive compensation if my livestock get FMD?

The AUSVETPLAN and state and territory legislation include details about compensation arrangements in the event of an EAD, while Australia's Emergency Animal Disease Response Agreement (EADRA) documents nationally agreed arrangements for the cost-sharing of compensation paid to affected livestock owners.

Compensation is provided by governments to the legal owners of livestock, livestock product, or other items ordered for destruction as part of the official EAD response. It is determined and managed by state and territory governments under their legislation. Business-as-usual costs such as feed, are not included within EADRA's compensation cost-sharing provisions. Compensation is also not available for loss of profit, loss arising from breach of contract, loss of production or any other consequential losses.

Relief and recovery mechanisms are included within National and State Emergency Management Disaster relief and recovery arrangements.

View Animal Health Australia's factsheet for more details: [Compensation and valuation in an EAD response](#).

21. What is the process for valuation and compensation in an EAD response?

The process involves the valuation of livestock that have been directed to be destroyed as part of the official EAD response, followed by the owner making a claim for compensation.

The EADRA and AUSVETPLAN set out the overarching framework for the valuation of livestock and property affected by an EAD response. Consistent standard valuation procedures include the use of various formulae in the AUSVETPLAN Operational Manual – Valuation and Compensation.

Generally, the value of livestock or property is calculated as the farm-gate value (based on a sale at the location of the livestock when it was destroyed or died of the disease, or the property when it was destroyed). Different formulae exist and trained, licensed valuers would undertake the valuation.

For more information, visit Animal Health Australia's [quick guide to compensation and valuation in an EAD response](#).

22. Where can I get more information?

[DAFF Foot-and-mouth disease webpage](#)

[DPIRD Foot-and-mouth disease: prevention and preparedness webpage](#)

[QLD Engagement Hub: Emergency animal diseases preparedness](#)