

Emergency Animal Disease (EAD) Preparedness FAQs

Foot and Mouth Disease (FMD)

What is Foot and Mouth Disease (FMD)?

Foot and Mouth Disease (FMD) is a highly contagious viral disease of animals. It is one of the most serious livestock diseases. It affects cloven-hoofed animals (those with divided hooves), including cattle, buffalo, camels, sheep, goats, deer and pigs. It does not affect horses.

FMD virus is carried by live animals and in meat and dairy products, as well as in soil, bones, untreated hides, vehicles and equipment used with these animals. It can also be carried on people's clothing and footwear. FMD virus can survive in frozen, chilled and freeze-dried foods including meat and dairy products.

It is found in many parts of the world, and has been reported in countries in Africa, the Middle East, Asia and South America. While it can cause serious production losses the most significant impact of the disease occurs because of its affect on trade in livestock and livestock products. Countries without the disease, which include many of Australia's major trading partners, do not import from or severely restrict imports from FMD-infected countries.

There is no threat to human health from this disease. FMD is not the same as hand-foot-and-mouth disease which is a common disease in young children.

How is FMD transmitted?

FMD is a viral disease that spreads rapidly between animals. Virus is excreted in breath, saliva, mucus, milk and faeces. The virus can be excreted by animals for up to four days before clinical signs appear. Animals can become infected through inhalation, ingestion and direct contact. The disease spreads most commonly through the movement of infected animals. FMD virus can also be spread on hair, grass or straw; by the wind; or by mud or manure sticking to footwear, clothing, livestock equipment or vehicle tyres.

How infectious is FMD?

FMD spreads rapidly from one animal to another, especially in cool, damp climates and/or when animals are penned or housed closely together. The virus survives well at temperatures below 4 degrees Celsius but is inactivated as temperatures rise. It is also rapidly inactivated at relative humidity less than 60 per cent.

How does FMD affect animals?

Although FMD impacts all ages it can be particularly lethal in young animals and can cause serious production losses. The clinical signs are fever followed by the appearance of fluid-filled blisters between the toes and on the heels, on mammary glands and especially on the lips, tongue and palate. These blisters often combine to form large, swollen blisters that erupt to leave raw, painful ulcers that take up to 10 days to heal.

Foot lesions leave animals lame and unable to walk to feed or water. Tongue and mouth lesions are very painful and cause animals to drool and stop eating. Adults usually begin eating again after a few days, but young animals may weaken and die, or be left with foot deformities or damage to the mammary glands.

What are the signs of FMD?

Signs of FMD in cattle include:

- Blisters and ulcers in and around the mouth, nose, teats and feet
- Drooling
- Excessive salivation
- Lameness
- Fever
- Sudden drop in appetite and/or milk production
- Abortion
- Sudden death in young animals

Is there any treatment or cure for FMD?

No. Most affected animals will recover. Vaccines can protect against the disease but do not necessarily prevent animals from being infected. Vaccination is used in many countries to control the disease in an endemic situation. For a country to regain FMD-free status and limit the economic impacts, it is important to eradicate the virus as quickly as possible. Movement controls and removal of infected animals (along with other complementary control measures such as cleaning and disinfection) are essential to eradicate this disease. Vaccination can be an important tool to assist in containing and eradicating FMD, but its use will have trade implications.

Does FMD affect humans?

There is no threat to human health from FMD. FMD is not the same as hand-foot-and-mouth disease which is a common disease in young children.

How likely is a FMD incursion in Australia?

Experts believe there is an 11.6% chance of an FMD outbreak in Australia within the next 5 years.

What can dairy farmers do to reduce the risk of an incursion on-farm?

Be aware of the signs of FMD and report anything unusual to the Emergency Animal Disease Watch Hotline on 1800 675 888

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Ensure your farm biosecurity plan is up-to date and that you adhere to traceability

obligations

People, vehicles and equipment pose a high biosecurity risk on-farm. Keeping track of visitors, quarantining new stock, and ensuring gear used on multiple farms (e.g. disbudding irons) is cleaned before use is a good starting place in preventing any disease spread. The best defence against pests and diseases is to implement good biosecurity practices and to prepare an on-farm biosecurity plan.

A simple, high-level biosecurity plan is available here:
<https://www.farmbiosecurity.com.au/toolkit/planner/>

Ask your vet for additional or more specific support.

Adhere to all traceability requirements

It is crucial dairy farmers adhere to traceability obligations, including ensuring all documentation is correctly completed. More information on meeting livestock transaction and movement requirements is available here: [Livestock Movements | Integrity Systems](#).

Biosecurity gate signs

Signs can be used to indicate to visitors the importance of following biosecurity procedures on your property. Remember to include contact details in the space provided.

You can purchase biosecurity signs from Animal Health Australia (AHA) here:
<https://animalhealthaustralia.com.au/shop/>.

Upskill and complete EAD training courses

Complete some of the free, online courses offered through AHA, including the EAD Foundations and FMD Awareness courses. More information is available here:
<https://animalhealthaustralia.com.au/online-training-courses/>.

How to prevent bringing Foot-and-Mouth Disease on farm

Australians traveling overseas, including to Indonesia for work or holiday could potentially bring FMD to Australia by accident unless they take appropriate precautions. With Bali being a popular travel destination for Australian tourists, the risk of FMD reaching our shores is currently heightened. Dairy Australia has published preventative guidance, available here: [How to prevent bringing Foot-and-Mouth Disease on farm | Dairy Australia](#)

What happens after FMD is detected?

The following will occur if FMD is detected¹:

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- rapid recognition and laboratory confirmation of cases
- immediate assessment of the epidemiological situation by State and Federal Governments
- strict movement controls, including an immediate livestock standstill
- implementation of legislated declared areas for disease control purposes including movement controls and surveillance

¹ <https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/livestock/animal-welfare/pests-diseases-disorders/foot-mouth>

- proactive management of animal welfare issues that arise from the disease or the implementation of disease control measures
- valuation, destruction and sanitary disposal of infected animals and animal products
- decontamination of facilities, vehicles, products and objects to limit the spread of the virus
- tracing and surveillance to determine the source and extent of infection (including, as necessary, in feral animals), and to provide proof-of-freedom
- surveillance and control of feral animal populations, as appropriate. Hunting may be banned in some areas
- recalling potentially contaminated animal products (including dairy products for animal consumption, etc.), unless considered unnecessary by a risk assessment
- relief and recovery programs to minimise animal welfare and human socio-economic issues
- a public information campaign
- industry engagement to provide technical expertise and improve understanding of the Emergency Animal Disease response process, facilitate cooperation and address animal welfare issues.

Is Australia prepared to handle FMD?

Australia has an internationally recognised capability to deal quickly and effectively with Emergency Animal Disease outbreaks. In addition, Australia has a good track record of successfully dealing with outbreaks of disease in its animal populations, such as the 2020 Avian Influenza outbreak. However, an outbreak of FMD could have dimensions significantly greater than anything we have had to deal with in the past.

Australia has in place detailed response plans and a comprehensive whole-of-government approach to managing animal health emergencies that are designed to ensure that resources from a wide range of agencies are available. The Department of Agriculture, Fisheries and Forestry collaborates with the state and territory authorities to coordinate national responses to animal health emergencies.

Government and industry's state of preparedness is under continuous review and improvements to the national capability are constantly being implemented. The degree of success in dealing with an outbreak will depend on the nature and extent of any outbreak. Early detection and reporting of the disease is vital to reduce its spread.

What plans are in place for an FMD incursion?

There is a comprehensive range of plans in place to deal with an emergency disease outbreak. These plans are revised and updated on a regular basis. The Australian Veterinary Plan ([AUSVETPLAN](#)) is the central plan for controlling and eradicating an outbreak.

There is also a national relief and recovery coordination framework. This framework sets out roles and responsibilities in dealing with the economic and social impact of a disease outbreak and returning communities to normal after an outbreak.

What systems are in place to quickly identify FMD?

The most important people in identifying and notifying FMD are usually stock owners and people who work with livestock. They should notify any suspicious signs of disease to **the**

Emergency Animal Disease Watch Hotline on 1800 675 888 and/or to their local vet immediately so that appropriate biosecurity arrangements to contain the spread of disease are instigated as quickly as possible.

Australia has an extensive network of both government and private vets who can identify the disease. This network includes 160 people who gained firsthand experience of FMD during the incursion response in the United Kingdom in 2001.

When a vet confirms a suspicion of FMD they will immediately take samples and send these to the appropriate laboratory for diagnosis. Diagnosis takes 24 hours. Meanwhile the premises will be quarantined, and plans activated so the response can be initiated as soon as the results are known.

Has FMD ever occurred in Australia?

Minor outbreaks of possible FMD are believed to have occurred in Australia in 1801, 1804, 1871 and 1872.

What should be done if signs of the disease are suspected?

If you notice any unusual disease signs, abnormal behaviour or unexplained deaths in your livestock, contact your veterinarian, stock inspector, local Department of Primary Industries/Agriculture, or the **Emergency Animal Disease Watch Hotline on 1800 675 888**.

Are there alternatives to destroying infected animals?

The primary means of eradicating an FMD outbreak is the humane destruction of infected animals. Other measures, such as the control of livestock movement, are also essential, however as a primary means of eradication, Australia does not consider any alternatives to destroying infected animals. Vaccination may be an important component of the response but will not be an alternative to humane destruction of infected animals.

Australia must make best use of new vaccine and diagnostic technologies to optimise FMD preparedness and response plans. There is more information on [Australia's national FMD vaccination policy](#).

How are infected animals and products disposed of?

In accordance with Australia's response plans, infected animals would be humanely destroyed. The carcasses and any contaminated products would be buried or burnt. Trials are currently being undertaken to investigate the possibility of composting carcasses and contaminated products.

How long will it take to respond to an outbreak of FMD once it is detected?

The response will be immediate on receipt of advice of a suspected case. The length of 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 single point outbreak authorities should be able to isolate and eradicate the disease quickly. If the disease has already taken hold and spread across a state or over borders, it will take much longer.

Early identification and reporting, and the need for vigilance on everyone's part, are vitally important.

What are the other risks for FMD transmission?

The most significant risk of entry of FMD into Australia is through illegal entry of meat and dairy products infected with the FMD virus and subsequent illegal feeding of these products ([swill](#)) to pigs. For this reason, it is **illegal to feed swill (food waste containing meat or other mammalian by-products) to pigs**. Feeding pigs milk, milk products and milk by-products either of Australian origin or legally imported into Australia for stock feed use is allowed in the absence of an FMD emergency response. However, in the event of an FMD outbreak, feeding milk, milk products and milk by-products to pigs carries a high risk of introducing the disease to a herd. Pigs are the major amplifying host for FMD and are the most efficient producers of virus in respiratory aerosols. For example, if FMD infects a large indoor piggery with air extraction fans, in the right atmospheric conditions, cattle for at least 10 kilometres downwind would be considered at risk.