

Frequently Asked Questions on Foot and Mouth Disease

Prepared by the Canadian Cattlemen's Association
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What is it?

It is a highly infectious viral disease of cloven-hoofed animals in which fever is followed by the development of vesicles or blisters – chiefly in the mouth or on the feet. There are 7 main types of virus, which produce similar symptoms and which can only be differentiated in the laboratory.

Which animals are susceptible?

Cattle, sheep, pigs and goats are susceptible as well as some wild animals such as rats, deer and zoo animals including elephants.

What are the symptoms?

Vesicles (blisters) in the mouth or on the feet and other symptoms which vary somewhat but may be:

CATTLE – Fever, dullness, off feed, shivering, reduced milk yield and sore teats in milking stock, slivering, tenderness of feet or lameness.

SHEEP AND GOATS – Fever, lameness, stiff legged walk, off colour, tendency to lie down.

PIGS – Fever, lameness, dullness, off feed.

How is it spread?

Foot-and-mouth disease (FMD) is a highly infectious disease that can spread by direct or indirect contact with infected animals. Infected animals begin by excreting the virus a few days before signs of the disease develop. Pigs in particular produce large numbers of virus particles.

Airborne spread of the disease takes place readily. The prevailing meteorological conditions and local topography determine the distance that the disease can travel and this may be considerable. The disease is also spread mechanically by the movement of animals, persons, vehicles and other things, which have been contaminated by the virus.

Meat from the carcass of animals infected with FMD at the time of slaughter can transmit the virus. Outbreaks of the disease have been linked with the importation of infected meat and meat products.

What are the effects of FMD?

The disease is rarely fatal to the animals affected, except in the case of the very young which may die without showing any symptoms.

All affected animals lose condition and secondary bacterial infections may prolong convalescence. The most serious effects of the disease, however, are seen in dairy cattle. Loss of milk yield, abortion, sterility, chronic mastitis, and chronic lameness are commonplace.

The most serious impact of FMD is that countries that have it are not allowed to export live animals or fresh or frozen meat products.

Can FMD be cured?

There is no cure. It usually runs its course in 2 or 3 weeks after which the great majority of animals recover naturally. The justification of slaughter policy is that widespread disease throughout the country would be economically disastrous due to the effects noted above.

What kinds of virus are there?

There are 7 main types: O, A, C, SAT.1, SAT.2, SAT.3, and Asia 1. Within each type there are many sub-types, e.g. O1 and A22. The average incubation period is 3-8 days but it can be shorter or may extend to 14 days or longer. It has been confirmed that the virus responsible for the present outbreak in the UK is the highly virulent pan-Asiatic O type. When animals recover from infection by one type of virus they have little or no protection against attacks by any one of the others.

Which countries have recently had FMD?

While the UK outbreak is garnering a great deal of media attention, FMD is endemic in parts of Asia, Africa, the Middle East and South America, with sporadic outbreaks in disease-free areas, so precautions should be taken whenever travelling overseas to avoid bringing the disease back to Canada. Countries affected by FMD in the past twelve months include Butan, Brazil, Columbia, Egypt, Georgia, Japan, Kazakhstan, Korea, Kuwait, Malawi, Malaysia, Mongolia, Namibia, Russia, South Africa, Taipei, Tajikstan, Uruguay and Zambia. The last major outbreak of the disease in the EU was in Greece last year.

How is the virus destroyed?

It can be destroyed by heat, low humidity, or disinfectants, but it may remain active for a varying time in a suitable medium such as the frozen or chilled carcass of an infected animal and on contaminated objects.

Can people contract the disease?

It is very rare and only contracted through direct exposure to an infected animal. The disease has no implications for the human food chain.

the general effects of the disease if contracted by a human are similar to influenza with some blisters. It is a mild short lived, self-limiting disease. A similarly-named human condition, called Hand, Foot and Mouth disease, is unrelated.

When was Canada's last outbreak?

Canada's last outbreak of FMD occurred in 1952. It is believed to have been brought into the country by a European post-war immigrant either on clothing or in a sausage.

Why not vaccinate livestock against it?

Vaccination is not an option for several reasons. Because blood tests of animals cannot differentiate between animals that have been vaccinated against the disease and those that have been exposed to it, countries that undertake vaccination programs cannot export meat or livestock. Initiating a vaccination program would have the same disastrous effect as an actual outbreak of the disease – Canada would lose the right to export meat and livestock.

In addition, there are several strains of the virus and it is not feasible to vaccinate against all the different strains.

The vaccine against FMD is only used in countries that have had an outbreak as part of their eradication program.

Should we close the borders to people from countries with FMD?

This is not a practical option. It would require stopping travel not only to and from Europe, but also to and from all the other countries where FMD exists, including India, Taiwan, China, Russia, Brazil, etc. This would not only impact Canada's tourism industry, it would also risk other countries banning imports of Canadian goods and services.

Should school trips to Europe be cancelled?

School trips are of no greater risk than any other travel to and from countries in which FMD exists. The current heightened awareness about this disease and the precautions to prevent it likely make travel to and from these countries less risky than in the past. So long as the proper precautions are taken – don't visit farms in countries where FMD is present; avoid visiting Canadian farms for at least 14

days after your return; if you must visit a farm disinfect all shoes, clothing and equipment that have accompanied you – the risk is minimal.

Should the military from FMD countries be banned from Canada?

The military is well aware of and capable of carrying out biosecurity measures to prevent the introduction of FMD and other foreign diseases. The military is less likely to be the cause of an outbreak than an unwitting traveler bringing an infected meat product into the country in a suitcase.

Does the European outbreak present an opportunity to sell more Canadian beef?

No it does not. Europe has had in place for many years a number of trade barriers against beef imports to artificially protect its beef producers from global competition. Having the disease now stops Europe from exporting its fresh and frozen meat to prevent the spread of the disease to livestock in other countries. However FMD is not a food safety issue, therefore because of the ban on exports Europe will actually have a larger supply of beef for sale domestically. Europe is also not a big player in world beef export markets so its removal from global trade does not present increased opportunities for Canadian export sales of beef.