



Foot and Mouth Disease Information Sheet

NORAD-USNORTHCOM/SG

SG

What is Foot and Mouth?

Foot-and-mouth disease (FMD) is a highly contagious viral disease that does not affect humans but has devastating effects on animals with cloven hooves such as cattle, swine, sheep, goats, and deer. The United States has not had a case of foot-and-mouth disease since 1929, and that occurrence was contained and eradicated quickly as a result of United States Department of Agriculture (USDA) efforts.

The USDA regularly monitors for any disease among United States livestock and takes aggressive steps to prevent FMD from spreading to the United States whenever there is an outbreak in other countries. The disease is rarely fatal, but may kill very young animals

Why are we concerned with Foot and Mouth Disease as a bioweapon?

Foot and mouth disease is a very contagious virus, with nearly 100 percent of exposed animals becoming infected. If the disease became widespread in the United States, we would be unable to export meat products to other countries and the economic loss could easily be many billions of dollars. During the outbreak of FMD in the United Kingdom, the estimated economic impact was 3.6 to 11.6 billion dollars, causing significant economic hardship on livestock agriculture. In addition, control of the disease would entail culling and disposing of livestock. The culling of livestock may have a further impact upon the supply of meat within in the United States if the disease were widespread in distribution.

Does this disease occur naturally?

FMD occurs sporadically in several areas of the world and is common in much of the developing world, including Africa, Asia, much of South America, and the Middle and Far East. Regions free of FMD include parts of Europe, Australasia, Japan and North and Central America.

Are there different forms of this disease?

There are seven types of FMD virus, all of which cause similar symptoms. Immunity to one type does not protect animals from other types.

Is the disease seasonal in its occurrence? No.

How does it spread? Who is at risk?

Transmission of FMD is generally by contact between susceptible and infected animals. All excretions and secretions from the infected animal contain virus. Aerosol FMD virus can spread a considerable distance as a plume, depending on weather conditions. FMD virus can survive in manure and urine for up to six months.

What are the symptoms of Foot and Mouth Disease?

The most obvious signs of the disease in animals are excessive slobbering, going off feed, and lameness. Affected animals may have a sudden rise in temperature, followed by blisters in the mouth or other areas of tender skin such as udders in females, nostrils, and on the feet – particularly near the hooves. Soft tissues under the hoof are often inflamed and the animal can become lame and may even shed its hooves. Eating becomes painful and many animals often go off feed, which results in weight loss, declined milk production for dairy cattle and goats, and declined meat production.

How soon do infected animals get sick/incubation period?

The average incubation period for FMD is between three and eight days, but it can be up to two weeks in some cases.

Is a vaccine available to prevent Foot and Mouth Disease infection?

Yes, but it is of limited duration/effectiveness and must be used in conjunction with restriction of movement and quarantine to prevent spread of the disease.

Can Foot and Mouth Disease be treated? How?

Animals infected with FMD are slaughtered rather than treated in order to prevent further spread of the disease. Treated animals could continue to be carriers of the disease.

Foot and Mouth Disease Information Sheet

NORAD-USNORTHCOM/SG

Are there ways to test for Foot and Mouth Disease in the environment?

No field expedient methods are available for testing. Samples must be sent to laboratory for testing.

What should someone do if they suspect livestock have been exposed to Foot and Mouth Disease?

Immediately report any unusual or suspicious signs of disease to a veterinarian, to State or Federal animal disease control officials or to the county agricultural agent. The report will set in motion an effective State and Federal eradication program.

What can I do to reduce the risk of bringing Foot and Mouth Disease into the United States?

Travelers can unknowingly transmit the FMD virus to susceptible animals if they come into contact with infected livestock, soil, or objects that have been contaminated with the FMD virus. The FMD virus can easily be carried on articles of clothing and footwear.

As a traveler, you are required to identify any farm contact and food and plant items in your possession to United States Customs and United States Department of Agriculture (USDA) officials at airports.

Do not bring into the United States from any country affected by FMD the following prohibited items:

- Products of swine or ruminants (that is, cattle, pigs, sheep, goat, and deer). Fresh swine or ruminant meat (chilled or frozen) products. Live swine and ruminants are also prohibited from importation into the United States.
- Unpasteurized dairy products including, soft, unpasteurized cheese or cheese containing liquid or meat and other prohibited products.

If at all possible prior to return, you should bathe and launder or dry clean your clothing, including outerwear.

- Remove any dirt or soil from your shoes, and follow this by wiping them with a cloth that has been dampened with a bleach solution (5 teaspoons bleach to 1 gallon water)
- Wipe soiled luggage and personal items (including watches, cameras, laptop computers, CD players, and cell phones) with a cloth dampened with a bleach solution.

References:

www.cdc.gov

www.aphis.usda.gov

www.cvm.missouri.edu

www.acvpm.org

The Merck Veterinary Manual, 8th Edition
USAF AFIOH/SD