

Keep Foot-and-Mouth Disease out! Do Your Part!

Will the U.S. avoid a Foot-and-Mouth Disease outbreak (FMD)? There are no guarantees when it comes to containing this highly contagious disease, but Federal and state authorities are taking steps to reduce the risk that the disease will infect livestock in this country. Individuals have a responsibility to cooperate and producers are advised to take a few additional precautionary measures. The following is a summary of information that may be useful while FMD is an imminent threat.

FOREIGN TRAVEL CONCERNS

Travelers who have been in countries with FMD pose a risk for introducing the disease into the U.S. The viruses that cause FMD are transmitted through air, infected meat and milk products, clothing and on vehicles or other contaminated items. People can spread the virus to animals on their shoes and clothes, and through food. The FMD viruses can persist on clothes and shoes for at least 9 weeks, and some sources say up to 12 weeks, and can remain in the nasal passages for as long as 28 hours after being around infected animals. The viruses can stay in human hair for one month. Humans do not contract the disease and it does not affect food safety.

Before leaving home

- Keep a set of clothing and a pair of shoes just to wear on the return trip to home. Don't wear this clothing during the rest of the trip.
- Contact the tour operator or travel agent to determine events that have been cancelled and travel restrictions that may apply.

While away

- If possible, schedule any trips to farms or zoos in the early part of your trip, at least five days before returning home.
- Follow all travel restrictions and disinfectant procedures in place in the sites being visited.
- **Do not** pack any plant or animal material or products for your return trip.
- All dirt and soil should be removed from shoes. Some people recommend discarding contaminated footwear

When re-entering the U.S.

- Under no circumstances should any meat or other animal products be brought into the United States - no matter how small or apparently safe. Do not try to sneak in products that are prohibited. Volunteer information the U.S. Customs Declaration Form and to officials when passing through Customs upon re-entering the United States. Let them know that you've been to a nation infected with foot-and-mouth, particularly if you have been on any farms in your travels. USDA Animal Plant Inspection Service (APHIS) officials will inspect baggage of travelers who indicate that they have been on a farm or in contact with livestock. Your shoes and luggage, and even items in your luggage, will probably be disinfected with bleach water.

When returning home

- Avoid farms, sale barns, stockyards, animal laboratories, packing houses, zoos, fairs or other animal facilities for 7 days after returning to the U.S.
- Wash or dry-clean all the clothing taken on the trip, even if they were not worn. Use hot water and detergent that contains chlorine bleach. Brands are available that will not fade colors. Dry laundered clothes in a hot clothes dryer.
- Clean dirt from shoes, both the soles and the uppers. Then mix one ounce of household bleach with one gallon of water, or one part white vinegar to one part water. Spray whichever mixture you choose on the shoes, paying special attention to the soles. Use the same mixture on a damp cloth to wipe down luggage and personal items such as watches, cameras, laptop computers, CD players and cell phones. **Do not rinse** the items after treatment.

LIVESTOCK PRODUCER CONCERNS

The following are items that livestock producers should consider to protect their herds from FMD:

Follow procedures that apply to all citizens traveling abroad and to foreign visitors

- Producers, family members and visitors who go to areas where FMD infection is active, should follow the rules and recommended procedures (mentioned above) that apply to travelers from those areas to the U.S.
- Launder or dry clean clothes immediately upon returning. Bathe or shower, shampoo your hair, and change into clothing and shoes that you did not take on your trip.
- Avoid contact with livestock or wildlife for seven days.

- **Tighten biosecurity**

Although most producers may not plan to travel abroad, they need to take precautions to protect their livestock from potential FMD virus contamination.

Stop all visitors from entering the premises who may have been in a Foot-and-Mouth Disease-infected country within the past seven days. Restricting the flow of people from off of the farm through the livestock operation is a good biosecurity practice. If visitors are allowed, operators may want to ask them to put on disposable plastic boots and protective clothing that are provided before visiting livestock facilities. Many producers already provide disposable footwear and others routinely prohibit visitors from entering barns altogether. See the Wisconsin DATCP web site, <http://datcp.state.wi.us/static/ah/footmouth/farmertips.asp> for additional information regarding biosecurity relative to FMD.

- It is advisable that employers or sponsors provide travelers with a clean set of clothing that can be worn after the visitor showers and shampoos thoroughly. Visitor's traveling clothes should be laundered or dry cleaned immediately. Off-farm activities should be scheduled for the visitor's during the first seven days that they are in the country. Contact with livestock or wildlife should be strictly avoided.

Monitor animals for FMD symptoms

Know the symptoms of FMD and regularly monitor animals for the presence of signs of FMD. Should an outbreak occur, containing the disease will require immediate detection and implementation of control measures. Delay in reporting increases the risk of spreading the disease. The dose of virus, route of infection

and virus strain govern the length of time between exposure and appearance of symptoms. Once animals become sick with FMD, the disease quickly spreads to other animals within the herd because the incubation period can be as short as two days due to the concentration of virus present. However, animals some distance away, like those on another farm, who receive a low virus dose may require 14 days to show FMD symptoms. A single infected herd can spread FMD virus to surrounding herds where animals appear healthy for some time, only to comedown with the disease later. The disease can get a running start before control procedures can be implemented. Early detection and reporting is essential.

The last outbreak of FMD occurred in 1929 (more than 70 years ago) so producers are probably not familiar with FMD's symptoms. Clinical signs associated with the disease for cattle, swine and sheep are listed below. Clinical signs of FMD can be similar to those of other diseases. Consult a veterinarian if there is a suspicion that animals might have FMD.

Clinical signs in cattle

A dramatic drop in milk yield which precedes clinical signs in dairy cows.

Clinical signs include all or some of the following:

- Fever with body temperatures of 104°F to 106°F
- Salivation
- Nasal discharge - serous, becoming mucopurulent after 2 to 3 days
- Vesicles (fluid-filled blisters) on the tongue, lips, dental pad, inner aspects of cheeks
- Vesicles on the feet which often form slightly later than those on the tongue
- Vesicles on the teats and udders
- Acute lameness usually in more than one foot. Feet are hot to the touch and palpation is resented
- 'Chomping' of the jaw and grinding of teeth due to pain in the mouth

The morbidity rate in outbreaks of FMD in susceptible animals can rapidly approach 100 percent, although the case fatality rate is generally less than 2 percent but slightly higher in younger animals due to myocarditis. Although animals will generally recover from the acute clinical phase of the disease, there may be permanent loss of performance, chronic lameness, permanent drop in milk yield, poor weight gain, poor quality 'staring' coat.

A large proportion of cattle will go on to become persistently infected carriers of FMD, hence the reason for destruction of cattle that become infected.

Clinical signs in pigs

The end of the incubation period is followed by a marked phase of fever, anorexia (not eating) and lethargy.

Pigs are extremely lame, are reluctant to move and adopt a hunched gait if forced to stand.

The severity of lesions on the limbs depends on the conditions under which the pigs are kept. Lesions are pronounced in animals kept on hard floors. Vesicular lesions appear rapidly on the snout, mouth, coronary band, accessory digits and possibly the pressure points on the limbs. Mortality in unweaned piglets due to myocarditis can be up to 100% and can precede any other signs of the disease (for

example, vesicles on the teats of lactating sows) Lesions age at a rate similar to that in cattle. Lesions are frequently subject to secondary infection. Pigs do not become carriers of FMD.

Clinical signs in sheep

FMD often produces only a mild clinical disease in sheep and goats. The initial fever phase may pass unnoticed. Sudden lameness may be seen in a large proportion of the flock. If infection enters around the time of lambing, mortality in lambs can be very high due to myocarditis. Vesicles may be found on the coronary band in the interdigital space on the bulbs of the heel. Vesicles can often be small and difficult to find. Close examination of each cleat of each foot is important in a thorough clinical examination of sheep for FMD. Vesicles, or more usually erosions, can be found on the tongue, buccal mucosa or dental pad. Sheep may also become persistently infected carriers of FMD. Lesions due to FMD are prone to secondary bacterial infection and, conversely, lesions of the hoof can predispose to infection with FMD virus by the percutaneous route. Particular care must therefore be paid to sheep showing any lesions of the feet.

For additional information on FMD contact:

USDA, APHIS, Veterinary Service
Emergency Programs
4700 River Road, Unit 41
Riverdale, MD 20737-1231

Telephone: (301) 784-8073
Fax: (301) 734-7817

The APHIS Emergency Operations Center

Telephone: (800) 940-6524
e-mail: emoc@aphis.usda.gov

OR

Wisconsin DATCP
Animal Health Division
2811 Agriculture Drive
P.O. Box 8911
Madison, WI 53708-8911

Telephone: (608) 224-4872
Fax: (608) 224-4871

Information on FMD Disease is also available at the following internet sites:

UNITED STATES DEPARTMENT OF AGRICULTURE

U.S. Department of Agriculture
<http://www.usda.gov/>

USDA, APHIS
<http://www.aphis.usda.gov/oa/fmd/index.html>

USDA, APHIS, Veterinary Services Foot-and-Mouth Disease Facts
<http://www.aphis.usda.gov/oa/pubs/fsfmd301.html>

U. S. Animal and Plant Health Inspection Service
<http://www.aphis.usda.gov/oa/fmd/index.html>

WISCONSIN DATCP DIVISION OF ANIMAL HEALTH

Tips for Travelers
<http://datcp.state.wi.us/static/ah/fmdguidelines.pdf>

Wisconsin's Plan if Foot-and-Mouth Disease Were to Strike
<http://datcp.state.wi.us/static/ah/footmouth/plan.asp>

Keeping Foot-and-Mouth Out of Wisconsin
<http://datcp.state.wi.us/static/ah/footmouth/prevention.asp>

Biosecurity advice for farmers
<http://datcp.state.wi.us/static/ah/footmouth/farmertips.asp>

Biosecurity recommendations for visitors to farms
<http://datcp.state.wi.us/static/ah/footmouth/businessstips.asp>

OTHER SOURCES OF INFORMATION

United Kingdom Ministry of Agriculture, Fisheries and Food
<http://www.maff.gov.uk/animalh/diseases/fmd/default.htm>

U.S. Embassy, London, United Kingdom
http://www.usembassy.org.uk/cons_web/footandmouth.htm

Irish embassy in Washington
<http://www.irelandemb.org/press/94.html>

Republic of Ireland
<http://www.rte.ie/footandmouth/>

ALEFF Group
<http://www.aleffgroup.com/avisfmd?#>

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