

## *Foot-and-Mouth Disease*

The issues surrounding foot-and-mouth disease are generating increased concerns, along with misconceptions. Some concerns are warranted, such as the serious health risk this disease poses for livestock. Others, however, are not, such as concerns that it threatens food safety and human health. To separate fact from fiction, the Food Marketing Institute (FMI) provided answers to the following questions commonly asked about this animal illness. These were prepared by FMI Vice President of Food Safety Programs Dr. Jill Hollingsworth, DVM.

### **What is foot-and-mouth disease (FMD)?**

It is a highly contagious and devastating viral disease of cattle and pigs. It also afflicts sheep, goats, deer and some other cloven-hoofed animals.

While it can kill very young animals, most of the stricken animals recover. The disease, however, leaves them debilitated, significantly decreasing meat and milk production — presenting serious economic losses for livestock owners.

The disease does not affect the safety of food, nor does it pose a health risk to humans.

There are seven types of the FMD virus, all of which have similar symptoms (see next question and answer). Immunity to one type does not protect animals from other types. Once animals are exposed to the virus, symptoms begin appearing in three to eight days, but it can take up to two weeks. The time lapse is important because infected animals must be immediately quarantined to prevent the virus from spreading.

Foot-and-mouth disease is in no way related to mad cow disease (bovine spongiform encephalopathy or BSE).

### **What are the symptoms or signs of foot-and-mouth disease?**

The most common signs are blisters on the animal's tongue, lips, mouth and hooves. The blisters easily rupture, leaving open sores, which cause excessive salivation or drooling. Blisters and sores on the feet cause lameness in infected animals. Often the blisters cannot be seen because they rupture quickly. Other symptoms include:

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Food Marketing Institute (FMI) conducts programs in research, education, industry relations and public affairs on behalf of its 2,300 member companies — food retailers and wholesalers — in the United States and around the world. FMI's U.S. members operate approximately 26,000 retail food stores with a combined annual sales volume of \$340 billion — three-quarters of all food retail store sales in the United States. FMI's retail membership is composed of large multi-store chains, regional firms and independent supermarkets. Its international membership includes 200 companies from 60 countries.

October 2001



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- A sharp increase in body temperature, which usually drops in two to three days.
- Clear or cloudy fluid from ruptured blisters.
- Reduced consumption of feed because of painful tongue and mouth sores.
- Loss of weight, which animals normally do not regain completely.
- An abrupt drop in milk flow from infected cows. Recovered cows seldom produce milk at their former rates.
- Low conception rates and increased miscarriages.
- Inflamed muscle walls in the heart (myocarditis), which can cause death, especially in young and newborn animals.

### **Can people contract foot-and-mouth disease?**

Eating meat from infected animals poses no health risk to people. The foot-and-mouth virus is not believed to cause any human disease. Over the years, reports of a few farm workers who experienced mild flu symptoms and developed blisters after coming into direct contact with infected livestock have been investigated. These rare cases have not been confirmed to be the same as foot-and-mouth disease in animals. In all instances, the symptoms disappeared quickly with no lasting aftereffects.

*In short, the disease does not threaten human health or the safety of the food supply.*

### **How does the disease spread?**

FMD can spread from one animal to another through ordinary contact, or by air or water. If a person comes into contact with a sick animal, that person may carry the virus to other livestock on shoes, clothing or hands.

### **If foot-and-mouth disease rarely kills animals and does not pose a human health risk, why is there so much concern about it?**

The virus spreads far and fast, and nearly all exposed animals become infected. If the disease becomes widespread in any country, the impact on its farm economy and food supply could be severe. The most serious effects would include sharp declines in milk from dairy cattle and goats and in meat from farm animals. The illness can sterilize livestock, cause miscarriages and lead to chronic lameness and sometimes death.

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**What would be the economic impact if foot-and-mouth disease occurred in the United States?**

The impact would depend on how fast the disease is identified and effective controls are put in place. If the disease is contained and eradicated quickly — as it was when the last U.S. outbreak occurred in 1929 — the damage would be small. A widespread outbreak could cost the U.S. livestock and dairy industry billions of dollars.

**How is the government keeping the disease out of the United States?**

The U.S. Department of Agriculture (USDA) continuously monitors the world for FMD cases. Whenever an outbreak occurs, USDA's Animal and Plant Health Inspection Service (APHIS) prohibits the import of *any* live animals capable of carrying the virus — and many products made from those animals — from the country of origin.

Due to the recent outbreaks in Europe and South America, APHIS officials are on heightened alert at U.S. points of entry. In 2001, USDA added 200 inspection personnel to high-traffic points of entry. All incoming travelers, luggage, cargo and mail are checked for prohibited agricultural products or other items that could carry the virus. APHIS prohibits travelers from carrying into the United States any agricultural products that could spread the disease. Officials clean and disinfect any items suspected of carrying the FMD virus. And they disinfect the shoes of people coming into the U.S. from countries where outbreaks have occurred.

Since the spring of 2001, USDA has prohibited the import of all susceptible animals, meat and dairy products that are fresh, chilled or frozen, and used farm equipment from high-risk countries.

**What can U.S. livestock producers do to help prevent foot-and-mouth disease?**

While there are currently no U.S. cases, producers can help prevent the virus from spreading if it does enter the country by taking the following steps:

- Know who is on your farm/ranch/property at all times. If people from countries with confirmed FMD cases are to visit your property, make sure they wear freshly cleaned clothing and shoes.
- Make sure visitors wash their clothes and shoes before traveling elsewhere.
- Be familiar with all the FMD symptoms.

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- If you suspect a farm animal is infected, immediately contact your state veterinarian, state or federal animal disease control center or county agricultural agent.

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**What can consumers do to help prevent foot-and-mouth disease from occurring in the United States?**

All travelers coming into the country — especially from areas where FMD has been identified — must declare on their customs form whether they have visited a farm or been in contact with livestock. People who have done so must disinfect any soiled shoes with detergent and bleach before they can enter the United States.

All international travelers also must declare if they are bringing any meat or dairy products into the country. USDA officials will then inspect their baggage and confiscate products from animals susceptible to FMD, with the exception of hard cheeses and canned products.

Travelers who were around livestock in the United Kingdom and other affected countries should avoid contact with susceptible animals for at least five days after returning to the United States.

*Since the virus does not affect the safety of food, U.S. consumers can continue to enjoy their favorite meat and dairy products without fear of becoming ill.*

**With so much attention being given to illnesses like foot-and-mouth disease, should consumers stop eating beef?**

According to the Centers for Disease Control and Prevention, the disease is not a threat to the public health. Since the virus does not affect the safety of food, U.S. consumers can continue to enjoy their favorite meat and dairy products without fear of becoming ill.