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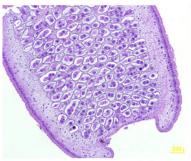
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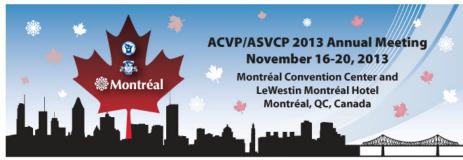
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FOOT AND MOUTH DISEASE FACTSHEET

Updated (7/2012)

Definition

Foot & Mouth Disease (FMD) is a highly transmissible, viral disease of primarily cloven-hoofed animals including cattle, pigs, sheep, goats, and deer. Ulcers in the oral cavity cause affected animals to make a smacking sound with their mouth, which is characteristic of the disease. Fever, lameness, and sores and blisters on the feet are also common symptoms.

Significance

While FMD is not normally fatal to adult animals, it seriously impairs the affected animals' ability to eat and ambulate, resulting in loss in meat and milk production. In young animals it can be fatal. This disease and loss of meat and milk production can have grave economic implications for the meat and dairy industries where the disease occurs.

History

Foot-and-mouth disease has occurred around the world, most commonly in Asia, Africa, the Middle East, and South America. North America, Central America, Australia, New Zealand, Chile, and some countries in Europe have not had outbreaks in the last 50 years.

The United States has experienced nine outbreaks. The first U.S. outbreak was in 1870 in New England and came from imported livestock, as did outbreaks in 1880 and 1884. They were mild and contained. The most serious occurred in 1914, affecting 22 states. The last outbreak occurred in California in 1929.

FMD first appeared in the United Kingdom in 1839. In 1967 and 1968 an outbreak led to the slaughter of more than 430,000 animals. A February 2001 epizootic in the United Kingdom resulted in the destruction of more than 1 million animals by the end of March.

FMD is listed in the World Organization for Animal Health (OIE) Terrestrial Animal Health Code, 2011, (Chapter 1.2, Article 1.2.3) and must be reported to the OIS. It is the first disease for which the OIS established an official list of free countries and zones with or without vaccination.

Transmission

Foot-and-mouth disease is one of the most contagious viruses and is spread by the discharge from the blisters and by the saliva of infected animals. Animals may become infected by contact with an infected animal, contaminated animal parts, or contaminated objects, such as farm equipment. The virus can survive in water and on surfaces for up to one month, depending on weather conditions. Under certain conditions wind can also spread the virus. Artificial insemination and contaminated biologicals such as hormones or vaccines can also lead to spread of the virus. Animals that do not become sick from the virus, such as dogs and horses, may come in contact with the virus and carry it to susceptible animals or contaminate livestock facilities or equipment. People wearing contaminated clothing or footwear or who use contaminated equipment can also pass the virus on to other animals.

Prevention and the Search for a Vaccine

To prevent the disease from occurring in the United States, the United States Department of Agriculture (USDA) bans the import of animals and animal products from known infected areas. The USDA also strictly

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monitors all ports of entry to the United States, requiring passengers who have traveled in affected areas to disinfect their shoes. They also search luggage and cargo for the presence of products that could spread the disease.

In affected areas, the traditional method of prevention has been to stop the movement of animals and animal products in the affected area, slaughter infected animals and contact animals, dispose of carcasses, disinfect vehicles and personnel leaving the infected area, and possible ring vaccination to create a buffer zone.

Controlling the importation of animals and animal products, proper decontamination and disposal of garbage are also key features of an effective prevention program. The public should also be educated.

FMD vaccine is not used in the US. Any FMD vaccine used in the US would require USDA and state approval. In areas where vaccination is practiced or in the event of an epizootic, it is important that the vaccine used contain the same subtype of virus as is in the area. This necessitates frequent checking of the serotype and subtype during an outbreak because FMD virus frequently changes during natural passage through various species. Vaccinated animals that are not completely protected can be a source of infection.

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