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FOOT AND MOUTH DISEASE QUESTIONS

Because of the recent problems in Britain and Europe, there have been many questions about Foot and Mouth Disease (FMD). I could probably fill the entire magazine with our knowledge about FMD; however, I will try to keep it somewhat shorter.

What causes FMD? FMD is caused by a virus, which exists as seven main virus types and at least 60 subtypes. The virus is resistant to normal environmental conditions and drying. The virus is inactivated by sunlight, low pH (acid), high pH (alkali), and high environmental temperatures. The virus can survive on your dirty shoes for several days.

What does FMD do to animals? FMD affects all cloven-hoofed animals (pigs, sheep, cattle, goats, deer, etc). It causes vesicles or blisters on the feet and in the mouth and on the nose. The animals become sick (fever, loss of appetite, salivation, depression, and young animals can die) and lose productivity. Even after recovery from the initial illness the productivity of the animals does not return to normal and abortions and other losses can continue indefinitely. Cattle, for example, do not return to normal production and would not be economically efficient.

How does FMD spread? Infected animals shed the virus into the feces, urine, saliva, and by coughing. Also, the virus is present in the blood and in the muscle tissues (meat). The virus can be spread by contact, through the air (aerosol), and through the uncooked meat. The virus spreads extremely rapidly and effectively. It can travel in the air for up to 40 miles over the land and up to 180 miles over water. Infected animals, uncooked meat products fed to swine, aerosol spread, contaminated vehicles, and contaminated shoes and clothing are common methods of FMD spread. The FMD virus is probably the most infectious animal disease that exists.

What countries have FMD? Many areas of the world have FMD. The ones that **DO NOT** have FMD include North America, Central America, Australia, New Zealand, Chile, and some countries in Europe (although much of Western Europe is now infected). The virus is routinely found in Asia, South America, Africa, and now many parts of Europe.

Has FMD been in California? The last two California outbreaks of FMD were in 1924 and 1929. The 1929 outbreak was relatively small and confined to the LA area. In 1924 the outbreak started in Dixon and spread throughout the central part of the state. Over 100,000 cattle and sheep were lost and more than 22,000 deer died in the Stanislaus forest alone.

What would FMD cost in California? An outbreak in California would cost us our export markets for meat and milk products for at least one year, which is almost 600 million dollars. The total losses for California have been estimated at 6-14 billion dollars before containment. The collateral losses would be devastating—defaults on bank loans, allied industry losses, losses in rural communities, etc.

Why don't we vaccinate now to prevent FMD? The vaccine does not prevent infection; it only decreases death losses and decreases virus shedding by the animals. Once a country begins to vaccinate they lose their export markets. Countries that cannot eliminate the virus are forced to vaccinate; however, economic losses continue in vaccinated herds. Also, blood tests cannot differentiate vaccinated animals from infected animals, so both must eventually be eliminated. Additionally, vaccination with one virus type does not protect against the other types (there are seven main FMD virus types).

What are the high risk factors for introduction of FMD to the U.S. or California? The high risk factors are infected animals, uncooked meat products from FMD countries, contaminated shoes, contaminated clothing, or contaminated farm equipment. Bans on all of these items have been put into place by the USDA and other agencies.

Would we receive indemnity if our cattle were killed due to an FMD outbreak? The USDA and CDFA have both assured the cattle industry that fair indemnity would be paid for all animals killed to stop an FMD outbreak or to eradicate FMD. However, the price could well be staggering and the speed of payment has not been guaranteed; therefore, it is important that all steps be taken to prevent introduction of FMD.

What are government agencies doing to prevent FMD in the U.S.? The USDA-APHIS (Animal Plant Health Inspection Service) has banned importation of animals from all FMD areas, including the U.K., European Union, and other endemic areas. Most bans have been in affect for many years. No meat products are entering the U.S. and the USDA has been working with Customs officials to increase their surveillance efforts greatly to prevent introduction from FMD countries. The CDFA (California Department of Food & Agriculture) is also playing a prominent role in this effort. They are loaning their expert personnel to USDA and other agencies to aid in this effort.

What can I do to prevent introduction of FMD? First, support the efforts of CCA. The California Cattlemen's Association is working with all the agencies to support their efforts and to demand all appropriate steps necessary be taken to prevent FMD from coming to the U.S. During the first week of April, CCA staff, officers, and volunteers were in Washington D.C. to meet with agency leaders and congressional leaders on this issue and other important issues for all California cattle producers. Second, practice good biosecurity on your ranches. Do not allow foreign visitors onto your premises or to contact your animals unless they have been checked out ahead of time. They should have been in the U.S. for at least 5 days before coming onto your ranch. Any visitors should wear protective footwear (disposable boots), have their boots disinfected (bleach solution, acetic acid [vinegar], or other appropriate disinfectants). Visitors should avoid contact with your animals.

You should review your biosecurity plan with your veterinarian, before allowing foreign visitors or recent travelers to foreign countries onto your ranch.

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