Don’t Stop Now

We’re as close as we’ve ever been to eradicating foot-and-mouth disease (FMD) from the Western Hemisphere.

by Meghan Richey

Most people in North America, and really across the world, think that FMD (foot-and-mouth disease) is running rabid in South America, and that just is not true,” says Philip Bradshaw, the United States’ private sector representative to the international group charged with eradicating FMD from the Western Hemisphere. “We are as close as we’ve ever been to eradicating this devastating disease.”

In fact, there were just 57 reported cases last year on the entire continent, more than half of which were isolated to Venezuela. When you consider that reported cases have historically been as high as 16,000 per year, this progress is outstanding. In the last three years, detection of FMD has been limited to just three relatively small geographic locations in South America: Venezuela, Ecuador and the Chaco region, which includes the area north of Argentina, south of Bolivia and west of Paraguay.

“I personally believe, as do many other people, that there are more cases than we have reported numbers, but I don’t think there are thousands of cases,” Bradshaw says. “I believe the trend we’re seeing of dramatically reduced numbers of infection is correct.”

Much of the credit for this progress goes to the Inter-American Group for the Eradication of Foot-and-Mouth Disease, known by its Spanish initials of GIEFA.

Created in March 2004 by the U.S. Department of Agriculture (USDA) and the Pan-American Health Organization (PAHO), the group is made up of both public and private sector representatives, like Bradshaw. Since formation, its goal has been to eradicate FMD from the Western Hemisphere by 2010, and if financial support continues, it looks like they’ll make it.

Complete eradication

The United States has been free of FMD since 1929, so although the American Veterinary Medical Association (AVMA) names FMD “the most economically devastating disease in the world,” it’s one that U.S. producers rarely think about as a routine part of their preventative herd health programs.

But with increased commercial and tourist movement to infected countries in South America, Bradshaw says accidental introduction of FMD to North America is still a realistic possibility. Equally as threatening is the possibility of deliberate terrorist contamination.

Studies conducted in an FMD modeling laboratory by the University of California–Davis have estimated a cost of $1 million to $3 million per hour for each hour that FMD were to be undiagnosed in the United States. Unfortunately, diagnosis would likely be slow to come if we were to have an outbreak since the disease is clinically indistinguishable from other vesicular diseases.

“Despite our success in reducing South American infections, as long as the disease continues without full eradication, it is just a matter of time before the U.S. is infected,” Bradshaw says. “But if we can help them move from control and vaccination to complete eradication, the Western Hemisphere will be a safer place for animal agriculture.”

FMD infections are now down to such low numbers that public and private financial support of the eradication effort is starting to dwindle because people think we don’t need to worry about it anymore.

“We’re at that point, unfortunately, where people are starting to feel comfortable living with it, rather than eradicating it. That’s not the right thing to do — not for South America or for American animal agriculture,” Bradshaw says. “We need visible U.S. companies to stand up and say publicly, ‘This is important and deserves our attention and funding.’ Now is not the time to be complacent; now is the time to eradicate.”

What is FMD?

Foot-and-mouth disease (FMD) is a highly contagious vesicular disease that affects ruminants, including cattle and swine. Caused by a virus, it is characterized by fever, lameness, and blisters (vesicles) and erosions of the mouth, feet and teats.

Disease morbidity is near 100%, and mortality for infected young animals is extremely high, too.

The virus is shed in all body fluids and secretions, and can be transmitted through exhaled air, direct contact, meat products (except aged, deboned beef) and inanimate objects.

As a vesicular disease, it is clinically indistinguishable from other diseases with similar-looking symptoms; without laboratory test confirmation it would be impossible to say whether an affected cow had FMD or vesicular stomatitis, for example. The FMD virus has seven serotypes with more than 60 subtypes, none of which provide cross-protection between the serotypes or subtypes. Targeted vaccination, quarantines, stop-movement orders and depopulation are used to control the disease.