

vaccinating twice with an oil adjuvant vaccine offers 99 percent protection, the proposed rule does not require any specific vaccine or number of vaccinations. The commenter questioned whether changes in Uruguay's choice of vaccine or the number of doses would affect the efficacy of the mitigation measure and affect the outcome of the risk assessment. The commenter also asked if we would change the import requirements and mitigation measures if Uruguay decides to stop vaccinating in the future.

Because Uruguay responded so quickly to the outbreak of FMD in April 2001, officials there did not have the opportunity to test different FMD vaccines to determine which was most effective. Uruguay used trivalent vaccines from Brazil and Paraguay and bivalent vaccines from Colombia and Argentina that had been approved and certified in their respective country of origin by the competent sanitary authority. In all cases, safety and efficacy tests used were those established by the regional reference agency, the Pan American FMD Center (PANAF-TOSA). Once the outbreak was under control, however, Uruguay's Ministry of Livestock, Agriculture, and Fisheries, together with PANAF-TOSA, conducted tests on a variety of vaccines in order to determine which would be most effective for use in the ongoing vaccination program. We have reviewed the results of these tests and have found

Uruguay's choice of vaccine, which offered a protection level of 99.7 percent after revaccination, to be adequate and effective. We do not believe it is necessary to require the use of a particular vaccine in this rule, as it is unlikely that Uruguay will choose a less efficacious vaccine in the future. However, we will continue to monitor the situation and make any necessary adjustments to the mitigation measure requirements if any changes occur.

As stated in the site visit report, under Uruguayan law, cattle are not allowed to be moved until they have been vaccinated against FMD twice. All cattle that are moved within Uruguay are required to be accompanied by a certificate that contains information about the date, brand, and series of vaccine that was used. Because this dosage requirement is already in place, we do not believe it is necessary to add this requirement to the rule. We will continue to monitor the situation and will reassess the situation and the risk level if any changes in Uruguay's vaccination requirements occur.

One commenter, referring to the scenarios presented in the risk assessment, asked about the expected incursions of FMD using a scenario of over 100 undetected herds.

We believe the commenter has misinterpreted the scenarios presented in the risk assessment. First, we note that the risk assessment never states that the data refer to potential "incursions" of FMD. The results from the scenarios

described in the risk assessment were derived from the negative binomial distribution, which calculates the number of years before the first importation of FMD-infected beef, not the first outbreak or case of FMD, from such imports. Second, the commenter appears to assume that we are comparing scenarios with a maximum of 35 undetected, infected herds versus a maximum of 62 undetected, infected herds. In our risk assessment, we developed two scenarios. The first scenario, which we believe is the most realistic, offers data for a situation involving between 1 and 35 undetected, infected herds. This scenario was run using a uniform distribution of values rather than point values, which means that every value within the range of 1 to 35 has an equal likelihood of occurrence. The second scenario, which we believe is less realistic but necessary in order to capture the full range of possible uncertainty, offers data for a situation involving between 1 and 62 undetected, infected herds, with a most likely value of 35 undetected, infected herds.

In order to reasonably evaluate a scenario for over 100 undetected, infected herds, we also had to present point value results at 35 and at 62 undetected herds. The results are presented in table 1, below. These results represent the number of years until the first importation of FMD-infected beef from Uruguay, not the first expected incursion of FMD.

TABLE 1.—RISK SCENARIO FOR OVER 100 UNDETECTED HERDS

	Point estimate of the number of infected and undetected herds		
	35	62	100
Mean number of years until the first importation of FMD-infected beef from Uruguay	10,500	5,900	3,700
Most likely number of years until the first importation of FMD-infected beef from Uruguay	6,200	550	510

The results show that for an average of 100 undetected, infected herds per year in Uruguay, the most likely number of years until the first importation of FMD-infected beef is 510. However, based on past history, we believe that it is likely that FMD would be detected before the number of undetected infected herds reached 100. Therefore, we do not believe that this risk scenario offers any realistic information about the risk of importing fresh (chilled or frozen) beef from Uruguay.

Serological Surveillance

One commenter noted that APHIS did not discuss FMD infection in feral species in Uruguay. The commenter

asked if surveillance has been done in feral populations. Although the information available to us indicates that there is no surveillance of wildlife populations in Uruguay, we have no evidence that indicates that feral animal populations in Uruguay are infected with FMD. To our knowledge, infections of FMD in wildlife were not a factor in the spread of FMD, nor were wildlife populations reservoirs of infection in past outbreaks. We have concluded that authorities in Uruguay are conducting adequate surveillance for FMD to detect the disease if it were to be reintroduced into the country. While there was no specific information presented to show that susceptible feral animals in

Uruguay are free of FMD, the active surveillance program includes domestic animals that may be exposed to feral animal populations.

One commenter inquired whether there were any results available from surveillance in susceptible species other than bovine. Uruguay has conducted surveillance of sheep, as discussed below. There has been no active surveillance of swine in Uruguay, partly because there are only approximately 300,000 pigs in the entire country. During the past outbreak, only 112 pigs were affected by FMD. Based on the small population of swine, combined with the fact that the FMD virus that was present in Uruguay affects