

requested, the number of doses likely, and the number of boars per shipment.

*Response:* In compiling data for the risk analysis, APHIS contacted several major breeding companies regarding their plans for importation. Although the companies gave no indication at the time of significant plans for importations, the risk analysis nonetheless assumed that such importations would occur.

*Comment:* APHIS stated that requirements for inspection by the Department's Food Safety and Inspection Service (FSIS) would reduce the risk of importing infected product into the United States even further than estimated in the risk analysis. Are there any rapid testing protocols, or pathognomonic (distinctly characteristic) lesions or clinical signs, that would lead an FSIS inspector to be concerned about CSF infection in a particular animal or pork product?

*Response:* There is no commercially practical test for the CSF virus in meat and meat products. Our statement in the proposed rule addressed ante- and post-mortem inspection of animals. Such inspection evaluates the general health of the animal to be slaughtered. One of the common characteristics of CSF is a high percentage of a swine herd sick at the ante-mortem stage. In addition, high temperature and purplish discoloration of the abdominal skin may be noticed. CSF does cause lesions on various organs that can be detectable post-mortem. Although we noted the benefit of inspection, the effect of such inspection was not considered in our risk analysis.

*Comment:* APHIS should explain why more emphasis was not applied to interpreting the "maximum likelihood" estimates regarding the risk of CSF introduction into the United States in addition to or rather than the "most likely" estimates. In risk evaluations, an evaluation of the range around the "most likely" estimate should carry as much weight as an evaluation of the "most likely" estimate itself.

*Response:* The most likely risk estimates were highlighted as the central tendencies of the model output distributions. However, maximum risk estimates (as well as minimum, mean, and median estimates) were also presented as part of the output of each scenario that was run for each model. In this way, readers had full information about the central tendencies and the ranges of the model outputs. However, the maximum risk estimates are obtained from the extreme tail of the probability distribution. The tail of the distribution represents an extremely small area relative to the area

representing the central mass of the distribution from which the most likely estimate is obtained.

*Comment:* Given the difficulty and subjectivity involved in determining the value of variables for use in the risk model, and the magnitude of the effect of the variables on the final risk estimate, it may be useful to conduct a Delphi Survey (a survey of the opinions of experts on a particular topic) to ascertain ranges of estimates for prospective risk. A sensitivity analysis could then be completed that combines the range of estimates (and the variation around the estimates) for the model inputs. This would allow APHIS to use data regarding CSF outbreaks since the December 2000 risk analysis was written, which would, in turn, allow the model to have more value for application to potential future CSF situations in the EU.

*Response:* Most of the data used in the risk analysis were generated during an extremely severe CSF epidemic that occurred in the EU in 1997 and 1998. As discussed in the risk analysis, this CSF epidemic is considered the most severe the EU has ever experienced. By using actual data from this epidemic rather than using estimates based on expert opinions obtained through a Delphi Survey, the risk assessment provides a more cautious estimation of the potential risk. The risk estimates generated in the analysis took into account the effectiveness of EU control measures, and if and where those measures failed, under these severe conditions. The risk analysis therefore anticipates future situations in the EU where CSF epidemics reach up to the same magnitude and the same level of detection and control failures as occurred during the 1997-98 epidemic. Given that recent CSF epidemics are of a smaller magnitude and have fewer failures in detection and control, they fall within the expectations of the current risk analysis. Incorporating the data from these recent epidemics into the analysis would likely reduce the estimated risk.

*Comment:* APHIS acknowledges the impact of the sensitivity analysis on the models but does not present the final risk estimations resulting from the sensitivity analysis. APHIS should publish the final risk estimates for the three models.

*Response:* A summary of the final risk estimates for all three models is presented in the executive summary of the risk analysis report. The full details of these estimates are presented throughout the text of the report. The risk estimates for each sensitivity analysis are reported in the sensitivity

analysis section. The sensitivity analyses were conducted to show how the final risk estimates might change under alternative assumptions regarding input values. As such, the results of the sensitivity analyses stand alone rather than as adjustments to the final models.

*Commenter:* The model does not account for the impact of intraregional spread (such as five herds being infected at one time). This, combined with the use of a conservative beta distribution to describe the proportion of infected herds from which animals are exported to the United States over time (g/h), biases the model toward underestimating the true risk to the United States. Is APHIS considering this aspect?

*Response:* As we discussed in the sensitivity analysis section of the risk analysis regarding swine semen, the beta distribution for the input value g/h is considered conservative in the sense that it likely contributes to overestimating the risk. Also, as discussed in the risk analysis, the CSF epidemic that provided the data for the analysis is considered the most severe the EU has ever experienced. Incorporated into the risk estimates based on this epidemic are six different risky periods representing index cases in six discrete locations in the EU: the Netherlands, Italy, Belgium, Germany, and two separate locations in Spain (the risky period is documented under input value b in the models). Since the models are exclusively based on the time period during which this severe epidemic occurred and do not incorporate any "peace time" periods, the model is actually biased toward overestimating the risk.

*Comment:* The risk analysis report, despite referring to the importance of the wild boar reservoir in maintaining the CSF virus in a region, concludes that the "risk of importing CSF-infected material from areas of the EU that are in close proximity to infected wild boar is not greater than the risk of importing infected material from areas that are geographically distant from primary outbreaks caused by wild boar." Have statistical tests been applied to the available data to provide a quantitative assessment of the risk posed by wild boar to EU herds? APHIS should review its previous assumptions about the role of wild boars with regard to the risk of importing infected or contaminated animals or products.

Will semen be allowed to be imported into the United States from an area in the EU that is designated by the EU to be "wild boar control area" (i.e., an area in which CSF has been diagnosed in feral swine and in which domestic