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United States
Department of
Agriculture

Marketing and
Regulatory
Programs

Animal and
Plant Health
Inspection
Service

Washington, DC
20250

Dr. Recaredo Ugarte
Director General de Servicios Ganaderos
Ministerio de Ganaderia, Agricultura y pesca
Montivideo, Uruguay

Dear Dr. Ugarte:

We have conducted a preliminary review of your report on the foot-and-mouth disease (FMD) situation in your country. As was mentioned in our response letter dated January 7, 2002, we are providing you with a list of questions that will allow us to conduct a preliminary evaluation prior to the requested site visit.

The first part of the list is organized following the 11 factors format we outlined for our regionalization process (Title 9, Code of Federal Regulations, Part 92.2). The information requested in this part will address specific aspects of Uruguay's animal health infrastructure and will provide the background for the evaluation.

The second part of the list represents quantitative values that are necessary for our quantitative risk assessment process. This section is organized in table format. We have also included a short description of the risk assessment approach and a scenario tree. We hope you will find this helpful in providing your responses.

We look forward to your reply and working with you in the future. Dr. Gary Colgrove will be the principal APHIS contact in this process. Dr. Colgrove can be reached by telephone at (301) 734-8364; by fax at (301) 734-3222; or email at Gary.S.Colgrove@aphis.usda.gov.

Sincerely,

Alfonso Torres
Deputy Administrator
Veterinary Services



Specific comments on the 11 factors:

Factor 1. *The authority, organization, and infrastructure of the veterinary services organization in the region*

What regulatory changes, if any, have been made as a result of the recent outbreak?

Factor 2. *Disease status*

How was disease thought to have been introduced (reintroduced) into Uruguay? What breeds or species were affected?

How long did it take to detect the disease and how was the time frame for the start of infection determined? (How would this change with vaccination?)

Your report indicates that 2,057 foci were reported. How many cases were diagnosed and reported within these foci?

Your report also indicates the number of foci reported by week. What is the number of infected herds and the number of infected animals reported by week?

What epidemiological linkages were established between the outbreak locations? What changes were made to address these linkages, and what estimates can be provided of the efficiency of those changes?

What geographic and environmental characteristics of the exporting region influenced the spread of disease?

Factor 3. *The status of adjacent regions with respect to the agent*

What is the prevalence of disease in all adjacent regions?

We understand that disease was introduced from an adjacent region. By which specific pathway or pathways was disease introduced? Are there any relevant factors about the adjacent regions that should be taken into account (e.g., size, distance from adjacent border to affected herds or animals)? What steps were taken to close the pathways?

Factor 4. *The extent of an active disease control program, if any, if the agent is known to exist in the region*

Please provide details of your foot-and-mouth disease (FMD) control program, including criteria for establishing and releasing quarantine restrictions, slaughter policy, cleaning and disinfection, carcass disposal, monitoring of premises, movement controls, approach to sampling, tests used, and any other relevant information.

What epidemiological investigations are done to trace the source and spread of infection?

What breeding practices are followed that might be relevant to introduction or spread of disease?

Is indemnity paid on destroyed animals? What estimates can be provided with regard to level of compliance with reporting procedures?

Have premises, thought to have been cleaned up, later been found to still be affected?

Factor 5. *The vaccination status of the region*

What proportion of animals is being vaccinated? (What proportion of the animals will be vaccinated and when?)

Please give details concerning the type, efficacy, use, ownership, place of production, and recordkeeping of the vaccine being used.

When was the last vaccination and how long will it be used?

Factor 6. *The degree to which the region is separated from adjacent regions of higher risk through physical or other barriers*

We have no questions under this factor.

Factor 7. *The extent to which movement of animals and animal products is controlled from regions of higher risk, and the level of biosecurity regarding such movements*

From what countries or regions does Uruguay import animals and animal products that could potentially introduce FMD?

Please provide details of the requirements/restrictions in place for importing animals and animal products, farming equipment, passenger baggage, etc. that are susceptible to FMD.

What movement controls and restrictions were instituted to address reintroduction of FMD and what is the level of biosecurity regarding such movements?

What test procedures are used and are they acceptable by OIE standards?

What other procedures are used to control and prevent FMD?

Factor 8. *Livestock demographics and marketing practices in the region*

How many animals, herds, flocks, etc. of each relevant species (cattle, sheep, goats, pigs) are in Uruguay? How are they distributed into commercial and backyard herds by department?

What is the distribution of commercial, backyard, etc., herds by department? What is the total number and distribution of mixed farms by department?

In case the United States would allow the importation of beef from Uruguay, what regions or departments will be the most likely source?

How many slaughter facilities are in the country? How many of these are Federally inspected? How many have been certified for export to the United States? What is the location of each? (You can illustrate using a map.)

Where are the major livestock marketing centers and what is their role in the spread of the disease?

How did the animal transport and handling practices and livestock demographic patterns contribute to spread of the outbreak? What steps were taken to interrupt the pathways?

In your report you mentioned guarantee measures pertaining to traceability, appropriate certification chain, and adequate treatment of animal products. Please provide details.

Factor 9. *The type and extent of disease surveillance in the region*

Are serum surveys conducted as part of your regular surveillance for FMD? If so, how frequently are they conducted, what sample sizes are used, and what has been found?

Is reporting of sick animals mandatory? If so, what is the procedure (by whom and to whom) and what penalties are involved for failure to report?

Are laboratory tests run on suspicious animals? If so, what procedures and to what extent (e.g., what proportion of suspicious cases are evaluated using each of the specific laboratory procedures)? What other procedures are used to investigate suspicious cases?

Factor 10. *Diagnostic laboratory capabilities*

How many laboratories are approved and by whom for FMD diagnosis?

How long does it take to confirm FMD?

What biosecurity measures are in place to ensure that FMD contamination of the laboratory, laboratory personnel, or the environment does not occur? What personnel are available, and what are their levels of expertise?

Factor 11. *Policies and infrastructure for animal disease control in the region – i.e., emergency response capacity*

What policies and infrastructure exist for emergency response to outbreak situations?

To quantitatively assess the risk of importing beef from Uruguay, we need to understand/quantify the following:

The likelihood that FMD will be reintroduced into the Uruguay.

The length of time it would take to detect the disease, report it, and stop export of beef to the United States

The number of infected herds and the number of viremic-FMD-infected animals that are slaughtered (without detection at ante- and post-mortem examination) during the time between reintroduction and detection of disease.

The likelihood that viremic-FMD-infected animals are slaughtered (without detection at ante- and postmortem examination) for export during the time between reintroduction and detection of disease.

The likelihood that maturation will fail to neutralize FMD virus in meat and the likelihood that the meat will not reach the required pH.

The likelihood that the infected meat will reach the United States prior to the outbreak being detected in Uruguay.

Ultimately, with this information, we can determine the answer to the following:

How likely is it for FMD-infected beef from at least one viremic carcass to enter the United States in any year?

Following are:

A listing of some parameters that need to be estimated; and

A scenario tree, showing the risk pathway, indicating what could go wrong.

Parameters Needed¹:

<i>Description</i>	<i>MINIMUM</i>	<i>Most Likely or Avg/Mean</i>	<i>MAXIMUM Or STDEV</i>	<i>Source, Reference and Justification & any supporting documentation</i>
Tons/Kgs. Of beef to be exported to USA per year				
Tons/Kgs of beef per shipment				
Kg. Of meat to be exported per cow				
Number of Herds in export region				
Number of herds that will provide cattle for export slaughter				
Herd size				
Proportion of each herd sent for slaughter per year.				
Proportion of Herds Vaccinated				
Proportion of Animals per herd Vaccinated				
Efficacy of Vaccine				
Time from slaughter of animals till arrival of the shipment at a port in the USA.				

For the non-Vaccinated Cattle Population

Days that an outbreak remains undetected				
Number of Herds Infected prior to detection, given an outbreak				
Proportion of Animals Per non-vaccinated Herd that are Viremic, given that the herd is infected				

For the Vaccinated Cattle Population

Days that an outbreak remains undetected				
Number of Herds Infected prior to detection, given an outbreak				
Proportion of Animals Per vaccinated Herd that are Viremic, given that the herd is infected				

¹ Please enter the minimum, most likely and maximum values, or the mean and standard deviations of the values. It is important that the source and reference of the values be documented. Any justification of the values and supporting documentation can be included separately, but need to be referenced in the last column.

	MINIMUM	Most Likely or Avg/Mean	MAXIMUM or STDEV	Source, Reference and Justification & any supporting documentation
Probability that virus in meat from an infected carcass survives export treatment (maturation to a pH \leq 5.8, and deboning)				
Prob. that FMD is not detected in an infected animal during ante-mortem Inspection				
Prob. that FMD is not detected in an infected animal during post-mortem Inspection				

Distribution² of beef shipments by month through the year
(Kgs or Tons per Month).

MONTH	MINIMUM	Most Likely or Avg/Mean	MAXIMUM or STDEV	Source, Reference and Justification & any supporting documentation
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
TOTAL				

² Please enter the minimum, most likely and maximum values, or the mean and standard deviations of the values. It is important that the source and reference of the values be documented. Any justification of the values and supporting documentation can be included separately, but need to be referenced in the last column.

The following figure illustrates a simple scenario tree associated with the importation of fresh beef into the United States.

Scenario Tree

