

APHIS Animal Health Status Evaluation Foot and Mouth Disease in Estonia

A review and analysis of Foot and Mouth disease (FMD) eradication program activities in the country of Estonia was conducted. This review was done in response to an Application for Recognition of Estonia free from Foot and Mouth Disease received from the National Veterinary and Food Board of Estonia in June 1999. Information for the evaluation was provided by the Government of Estonia. In addition, APHIS conducted a site visit to Estonia in order to verify and complement all information submitted. A list of the documents provided by Estonia is compiled in Appendix A. Copies of these documents are available on the Regionalization Evaluation Services web site at <http://www.aphis.usda.gov/vs/reg-request.html>.

This report is based on evaluation of the eleven factors identified in the Policy Statement accompanying the APHIS's Regionalization Final Rule. The eleven factors are:

- ◆ Legal authority, organization and infrastructure of Veterinary Services
- ◆ Disease prevalence and outbreak history
- ◆ Disease prevalence in adjacent regions
- ◆ Animal disease control programs in the region
- ◆ Vaccination status
- ◆ Separation of the region from regions of higher risk through physical or other barriers
- ◆ Movement of live animals and animal products
- ◆ Livestock demographics and marketing practices
- ◆ Disease surveillance
- ◆ Diagnostic laboratory capabilities
- ◆ Emergency response capabilities

Legal Authority, Organization, and Infrastructure of Veterinary Services

Veterinary Services in the Republic of Estonia are organized with the Minister of Agriculture overseeing the State Veterinary Institutions, Veterinary and Food Board, and Veterinary and Food Laboratories. The central authorities issue legislation pertaining to public health and animal health. Veterinary and Food Board has the legislative authority to immediately issue the necessary regulations when an outbreak of a foreign animal disease is suspected. The Veterinary Activities Organization Act June 1999 outlines the legal authority for veterinary activity in Estonia. The country is divided into 15 districts. Each district is under the supervision of the District Veterinary Officer (D.V.O.). The D.V.O. reports directly to the Director General of the Central Veterinary Office. There are 209 authorized veterinarians employed by the government. An authorized veterinarian is a private veterinarian who holds a license and who is granted authority by the Minister of Agriculture to inspect the state. Authorized veterinarians are selected through appointment to work under the D.V.O. The selection process is by a commission of three; an official from the central veterinary office, a local district veterinary officer, and a member of Estonia's veterinary association. The contract is for 5 years but the

authorized veterinarian must compete for the position every year. They are paid 10% of the contract as base pay and 90% is tied to performance and monthly completion of a duty schedule. The duties that must be performed include: farm and facility inspections, sampling for disease control programs, certification and market inspection and investigation of suspected foreign animal diseases. Authorized veterinarians are required to attend working group meetings every month. These meetings are used to introduce new legislation and to discuss the progress of animal health programs. Presently, there are 209 authorized veterinarians that service approximately ninety-eight farms throughout the country. There are 841 private veterinarians, 43 veterinarians employed in 6 approved laboratories, and a number of trained technicians. Reporting of any suspected case of a foreign animal disease is mandatory for the owner and or manager of the farm as well as any laboratory personnel or private practitioner. Private practitioners are obligated to assist authorized veterinarians when called upon by the government in the event of a disease outbreak.

Evaluation: APHIS considers Estonia to have sufficient legal authority, organization, and veterinary infrastructure to detect, control, and eradicate Foot and Mouth disease.

Disease Prevalence and Outbreak History

The last outbreak of FMD in Estonia occurred in 1982. The disease was traced to its origin in the country of Latvia. All animals diagnosed and showing clinical signs were destroyed through incineration. The procedures used to contain the spread and eliminate the disease were surveillance, vaccination, and the establishment of buffer zones. Although Estonia has been declared free from FMD by the OIE, the country continues to test and monitor all herds for FMD. To date, 266 cattle tested negative for the disease.

Evaluation: Estonia has not had an outbreak of FMD since 1982. Estonia was able to contain, eliminate, and trace to its origin that outbreak.

Disease Prevalence in Adjacent Regions

The countries bordering Estonia are Lithuania and Latvia to the south and Russia to the east. These countries are not recognized as free of FMD by the U.S. Department of Agriculture. Finland, which is located north of Estonia and separated by the Baltic Sea and the Gulf of Finland, is considered free of FMD. Estonia does not import live animals from Lithuania, Latvia, or Russia. Competition horses, however, are allowed to enter accompanied by the appropriate transit permits and health certificates. These documents are kept on file at the central office in Tallinn. Breeding stocks (cattle and swine respectively) are imported in low numbers from Germany and Sweden. Estonia also imports bovine embryos from the United States and Canada. Relations between Estonia and its neighbors are such that veterinary officials in Estonia are kept well informed about the current animal health disease status within these bordering countries including Russia.

Evaluation: APHIS recognizes that Lithuania, Latvia and Russia, which border Estonia, are not free from FMD. However, because Estonia receives no imports of live animals or animal products from these countries, APHIS considers the risk of FMD entering Estonia to be negligible.

Animal Disease Control Programs in the Region

Suspected cases of a foreign animal disease such as FMD in the field are reported to the District Veterinary Office by the authorized veterinarian. Upon suspicion of FMD, the owner is required to isolate all susceptible animals on the premises until an official diagnosis is made. A thorough epidemiology investigation is conducted by the authorized veterinarian to determine the source of the outbreak. Once the official diagnosis of a FMD has been confirmed, a local infectious animal disease control committee (LIADCC) is set up by the county governor on the request of the local office of the Veterinary and Food Board. The task of LIADCC is to carry out the epizootiological testing, define protection and surveillance zones and coordinate, organize and monitor implementation of the infectious animal disease control measures. In performing its tasks, LIADCC cooperates with the local governments, the Police Board and local Rescue Board, representatives of the Environment Inspectorate and the local office of the Health Protection Service. All authorized veterinarians, private veterinarians and animal owners must comply with the requirements for prevention and control of infectious animal diseases as outlined by the Infectious Animal Disease Control Act. Should depopulation be necessary there are four rendering facilities and incinerators available for carcass disposal as well as a number of burial areas for low risk materials.

Additionally, Estonia has 10 animal disease control programs in operation throughout the country. These are designed for the control of bovine tuberculosis, brucellosis, enzootic leukosis, IRT/IPV, leptospirosis, trichomoniasis, campylobacteriosis, chlamydiosis, mucosal disease, and Paratuberculosis (Johne's Disease). Authorized veterinarians maintain these programs within their assigned districts and are responsible for maintaining the health of farm animals on the premises. Cows, heifers, bulls, swine, and boars are examined every year for tuberculosis, brucellosis, and leptospirosis. Horses are examined annually for EIA and glanders. Poultry are examined every year for tuberculosis, salmonella pullorum, and Newcastle disease. Follow-up tests are performed on animals that show clinical signs for the diseases mentioned above.

Evaluation: Estonia has the appropriate personnel for laboratory diagnosis and conducting epidemiological investigations as well as funding and authority for herd testing, depopulation and compensation for slaughtered herds.

Vaccination Status

Vaccination against FMD is neither permitted nor practiced in Estonia. Emergency vaccination is only performed if there is risk of an extensive spread of the disease. A decision to carry out emergency vaccination is taken by the Minister of Agriculture and OIE is given prior notice of the vaccination.

Evaluation: Estonia does not vaccinate for FMD.

Separation of the Region from Regions of Higher Risk through Physical or Other Barriers

Estonia is slightly larger than Belgium and is surrounded by three bodies of water. This peninsula is located off the eastern coast of the Baltic Sea and the Gulf of Riga and just south of the Gulf of Finland. It borders Russia on the east and Latvia is located directly south. Forty-seven percent of Estonia's territory is forest and woodland with nearly 1200 lakes. The two major lakes are, Lake Peipsi which borders Russia and lake Vortsjarv located within the southern part of the country. Estonia is divided into 15 districts, 207 rural municipalities and 47 towns. There are 52 islands extending from Estonia's coast. Saaremaa, Hiiumaa, and Muhu are the largest of these islands.

The border between Russia and Estonia has two inspection points, Naarva and Luhaama. Naarva is located northeast and Luhaama is located at Estonia's southern border. No live animals or animal products are imported from Russia. The port of Tallinn consists of 4 constituent harbors, Old City harbor, Muuga harbor, Paljassare harbor, and Paldiski south harbor. There are also 3 animal inspection points located at the Ikla, Valga, and Murati on the southern Estonia-Latvia border.

Evaluation: Oceans, forest and woodland with nearly 1200 lakes provide sufficient physical barriers to effectively isolate Estonia from areas of high risk for FMD.

Movement of Live Animals and Animal Products

There are twenty animal inspection border post located in Estonia. Each inspection site has a veterinarian on duty to perform health examinations of live animals and inspect animal products. The border between Russia and Estonia has two inspection points, Naarva and Luhaama. Naarva is located northeast and Luhaama is located at Estonia's southern border. No live animals or animal products are imported from Russia. The port of Tallinn consist of 4 constituent harbors, Old City harbor, Muuga harbor, Paljassare harbor, and Paldiski south harbor. There are also 3 animal inspection points located at the Ikla, Valga, and Murati on the southern Estonia-Latvia border.

All movement of live animals and animal products is under an animal health permit. This permit is issued by the District Veterinary Office. It is electronically sent to the land and sea border posts. The animal health permit is in triplicate; one copy accompanies the animal or animal product to its final destination, one copy is sent to the central veterinary office in Tallinn, and one copy remains at the issuing district veterinary office. Any retention or seizures of live animals or animal products performed at any border checkpoint are of those that failed to meet the requirements set by the National Veterinary and Food Board, Infectious Animal Disease Control Act.

Evaluation: APHIS believes that Estonia's import requirements are sufficient to ensure that Estonia is unlikely to be reinfected with FMD by imported live animals.

Livestock Demographics and Marketing Practices

There is a total of 271,883 heads of cattle; 304,000 pigs; 21,250 sheep; 1,116 goats; 2,430,000 poultry; and 5,100 horses in Estonia. No distinctions are made which might increase the spread of FMD in Estonia between commercial and private herds of animals in marketing, movement and husbandry practices. Farmers are responsible for taking their animals to the slaughter facilities and there is no central dairy collection center. Every animal can be traced electronically via an animal health certificate issued by the authorized veterinarian of one of the district offices. All cattle are individually identified by a mandatory yellow eartag and swine are identified by a mandatory farm brand. The health certificate contains general health information, farm of origin and the diagnostic record of the animal for the past 12 months. There are no live animal markets but Estonia does allow animal exhibitions. FMD has never been diagnosed in wild or zoological animals. Estonia has one active monitoring program classical swine fever (CSF) for wild boars. Hunting of wild boars is regulated and 95% of the hunted boars processed in approved slaughtering plants is for human consumption.

Evaluation: Estonia has an adequate system for identifying and tracing cattle and swine herds.

Disease Surveillance

The control measures being applied at this time are prohibition of imports from countries that are not declared free of FMD in addition to testing and monitoring of all herds. In an effort to maintain disease surveillance of all live animals and animal products that enter and exit the country, twenty border posts have been established which have veterinary inspection. Estonia has also established a land border post with Russia. This border extends from the northeast on the coast of the Baltic Sea, at Naarva and ends south at Luhamaa.

Because veterinary services are free, farmers are encouraged to report any diseased or ill animals on their premises to their authorized veterinarian. All authorized veterinarians, private veterinarians and animal owners must comply with the requirements for prevention and control of infectious animal diseases as outlined by the Infectious Animal Disease Control Act. The penalty applied to animal owners who fails to report any diseased or ill animals on their premises is to 100,000 kroons which is equal to approximately \$5,424.67 U.S. dollars.

In the event of an outbreak of a foreign animal disease, the primary responsibility for control and prevention of the spread falls with the Minister of Agriculture. The Minister of Agriculture delegates responsibility for the application of control measures to the Director General of the Veterinary and Food Board. After the foreign animal disease has

been officially diagnosed, the Minister of Agriculture sets up a national infectious animal disease committee (NIADCC). The task of the NIADCC is to coordinate the implementation of the contingency plan for the control and eradication of the infectious animal disease. NIADCC cooperates with the veterinary services of other countries, the Police board and the Rescue Board to prevent further spread of the foreign animal disease. The director general sets up a group of experts who have the task to advise the national veterinary service in contingency planning. The group of experts include; veterinary officials, a representative of the meteorology and hydrology service and a computer expert. A representative from the group of experts advises the Director General in making decisions necessary to prevent the spread of the disease.

An official diagnosis of foot and mouth disease is made through the central veterinary and food laboratory located in Tartu. Quarantine is established at the outbreak site and government authorities inform the public of the FMD outbreak. A protected zone of at least 3 km and a surveillance zone of at least 10 km are established around the outbreak site. The owner must display signs stating “Foot and Mouth Disease. No entry” in visible places on and around the premises in addition to isolating all ill animals.

All confirmed cases of the FMD are slaughtered and their carcasses are disposed of through incineration. After their elimination, the owner must clean and disinfect animal barns and their surroundings as well as items which may have been contaminated with the disease, under the guidance and supervision of an authorized veterinarian.

Evaluation: Surveillance for FMD in Estonia has been adequate since the last outbreak of the disease in 1982. Estonia has an active surveillance FMD program which is adequate for controlling and eradicating the disease.

Diagnostic Laboratory Capabilities

Estonia utilizes a series of diagnostic laboratories geographically situated throughout the country to support the surveillance and monitoring activities of its animal disease control programs. The Estonian Veterinary and Food laboratory (VAFL) is a government operated laboratory located in Tartu. Its first priority is to carry out the testing of the various farm animal disease surveillance and food safety control programs. The VAFL offers laboratory services to private veterinarians and farmers for the diagnosis and control of animal diseases and to food processing plants for food safety and quality control. There are 5 regional laboratories, which report to the Veterinary and Food Laboratory (VAFL) located in Tartu. The regional laboratories are accredited by the Estonian Accreditation Center. The VAFL and the Tallinn laboratory department specialize in the diagnosis of diseases in cattle, pigs and sheep as well as heavy metal analysis of foodstuff and animal feeds. The laboratory located in Tallinn specializes in horse and poultry diseases and drug residues. Both laboratories test food for microbiological and chemical contaminants and are the reference laboratories for their respective diagnostic specialties. The regional laboratories perform limited microbiological, diagnostic, biochemical, and chemical analysis.

In the event of an outbreak of a foreign animal disease, the local infectious animal disease control committee (LIADCC) must send the collected samples for testing to the Veterinary and Food Laboratory as outlined and in accordance with the procedures provided in the Code of Practice, of the Contingency Plan. The Director General is in contact with NIADCC and the Veterinary and Food laboratory to ensure mobilization of the laboratory staff to conduct the extensive serological testing. The VAFL can test for FMD using the ELISA (Ak) for serotypes A, O and the ELISA viral antigen detection. After a confirmed diagnosis of FMD is made, notice must be sent to the head of the local office of the Health Protection Inspectorate from whose area of supervision the testing material originated. To ensure that pathogenic materials do not escape from the laboratory into the environment, a special permit is required by all laboratories that engage in the testing of infectious animal disease pathogens for isolation and cultivation purposes.

The VAFL is in close contact with five international reference laboratories for further confirmatory diagnosis and typing of a specific foreign animal pathogen. The preferred international reference laboratories approved by FAO for List A infectious animal diseases are listed below:

1. Institute for Animal Health, Pirbright, United Kingdom for FMD, swine vesicular disease, bluetongue, African horse sickness, cattle plague, peste des petits ruminants, sheep and goat pox, African swine fever and bovine nodular dermatitis.
2. VLA Weybridge, New Haw, United Kingdom for classical swine fever, fowl plague and Newcastle disease
3. Onderstepoort Veterinary Institute, South Africa for rift valley fever.
4. National Veterinary Services Laboratory, Ames, Iowa, United States for vesicular stomatitis.
5. CESME, Istituto Zooprofilattico Sperimentale dell'abruzzo e del Molise G. Caporale, Italy for contagious bovine pleuropneumonia.

Evaluation: APHIS finds that Estonia has the adequate diagnostic capabilities and sufficient personnel to diagnosis FMD.

Emergency Response Capabilities

The Contingency Plan for control of infectious animal diseases outlines the legal provisions and plan of action for eliminating FMD should the disease enter the country. The Estonian Veterinarian and Food Board has the field force, experience, authority, and diagnostic capability to rapidly detect and respond to a FMD outbreak or any other foreign animal disease emergency.

Evaluation: Estonia has adequate policies and animal health infrastructure for identifying, controlling and eradicating FMD should an outbreak occur.

Conclusion:

Based on the information provided, APHIS considers that unrestricted importation and exportation of live animals and animal products from Estonia, presents negligible risk of introducing Foot and Mouth Disease into the United States.

Appendix A

Documents Provided by Estonia

1. Law of the Republic of Estonia on Veterinary Service.
2. Infectious Animal Disease Control Act, Passed 16th June 1999 (RTI 1999, 57, 598).
3. Statutes of the Veterinary and Food Board.
4. Veterinary Activities Organisation Act (Jan 2000) Passed 16 June 1999 (RT I 1999, 58, 608).
5. Conditions and procedure for payment of compensation for cost related to the prevention and control of especially dangerous infectious animal diseases, Government of the Republic Regulation No. 260 of 1 August 2000.
6. The list of species of agricultural livestock to be identified/registered, the procedures and rules for identification/registration, the rules for Registry Certificate issuance (March 2000).
7. Veterinary Requirements for Animals which are Transferred from one Herd to Another or Sent to Slaughterhouse for Slaughter, Minister of Agriculture Regulation No 46 of 26 June 2000.
8. Conditions for Prophylactic Quarantine of Animals and Requirements for Quarantine Stations, Minister of Agriculture Regulation No 43 of 24 December 1999.
9. Veterinary Conditions for Importing Cattle for Breeding Purpose into Estonian Republic, Republic of Estonia State Veterinary Department.
10. Ministry of Agriculture - Veterinary and Food Department organizational chart.
11. Structure and Functions of the National Veterinary and Food Laboratory.
12. Structure of Animals Breeding in Estonia (charts).
13. Schedule of Veterinary Training Programme of Animal Health Department.
14. Estonian Veterinary Association as possible training provider for veterinary practitioners.
15. Annual Report - FAO/OIE/WHO Questionnaire - 1999 Estonia.
16. Animal Health Situation in the Republic of Estonia.
17. Republic of Estonia Examination of bovine animals of antibodies of Foot and Mouth Disease and Rinderpest in 2000.
18. Veterinary and Food Board, "Surveillance Programs and Results in Estonia in 2000 (chart).
19. Veterinary and Food Board Estonia, "Current situation regarding veterinary monitoring and surveillance in Estonia".
20. Monthly Animal Health Status Report.
21. Animal Health Emergency or Follow-Up Report (sample form).
22. Questionnaire for Suspicion of Especially Dangerous Infectious Animal Disease, Decree No. 6 of 11 March 1998.
23. Rules for Control of Foot and Mouth Disease.
24. Contingency Plan for Control of Infectious Animal Disease.