



Animal and Plant Health Inspection Service
U.S. DEPARTMENT OF AGRICULTURE

Report on the Review of Latvia's Animal Health Statuses for Swine Diseases

Veterinary Services
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Executive Summary

The United States Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), in collaboration with the Canadian Food Inspection Agency (CFIA), has conducted a review of the European Union (EU) animal health statuses for four transboundary swine animal diseases: foot-and-mouth disease (FMD), swine vesicular disease (SVD), classical swine fever (CSF), and African Swine Fever (ASF). APHIS currently recognizes Latvia as free from FMD and SVD, and as low risk for CSF. ASF is present in Latvia in domestic and wild boar since 2014 and implementation of EU regionalization strategies to control the disease are ongoing. APHIS has selected the Republic of Latvia (henceforward Latvia) as a representative Member State for the EU and conducted this review to determine whether conditions in Latvia justify maintaining the EU's animal health statuses for the above diseases.

The objective of this review is to determine whether conditions in Latvia justify maintaining its animal health statuses and that of all EU Member States for the above diseases. The review consisted of a document review and APHIS has collected and analyzed information relevant to the factors used to conduct evaluations to establish initial animal health statuses. All information was collected from records of Latvia's Food and Veterinary Service (FVS), the European Commission's (EC) Food Safety Authority, the World Organization for Animal Health (OIE), and other publicly available information.

APHIS concluded that the likelihood that the disease agents for FMD, CSF, and SVD are present in Latvia is negligible, and that sufficient import measures exist to prevent their entry into the country. On the other hand, the ASF virus is present in Latvia and is circulating in wild boar and has been detected in several domestic swine farms. APHIS further concludes that detections of ASF particularly in wild boar are expected to continue to occur, and that detections in domestic swine appear to be declining consistent with the trend of the disease in other affected Member States. Review of the veterinary infrastructure information provided by Latvia demonstrated an adequate infrastructure for rapidly detecting all diseases under review, disease surveillance, control and eradication, and certification of exports to the United States. In addition, Latvia has demonstrated a history of prompt reporting of disease events and taking appropriate measures to prevent their export to the United States.

The information provided by Latvia support continuation of the current APHIS-granted animal health statuses for FMD, CSF, ASF, and SVD and related import requirements. Recognition of these statuses will be maintained until the next APHIS review or until a change in Latvia's animal health status is reported.

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Acronyms

ADC	Agricultural Data Center
ADDL	Animal Disease Diagnostic Laboratory
ADNS	Animal Disease Notification System
APHIS	Animal and Plant Health Inspection Service
ASF	African swine fever
AV	Authorized Veterinarian
BCD	Border Control Department
BIOR	Institute of Food Safety, Animal health and Environment
BIP	Border Inspection Post
BVI	Border Veterinary Inspector
CCP	Critical Control Point
CFIA	Canadian Food Inspection Agency
CFR	U.S. Code of Federal Regulations
CSF	Classical swine fever
CMR	Council of Ministers Regulation
CVED	Common Veterinary Entry Document
CVO	Chief Veterinary Officer
EC	European Commission
EFSA	European Commission's Food Safety Authority
ELISA	Enzyme-Linked Immunosorbent Assay
EU	European Union
EURL	European Union Reference Laboratories
FMD	Foot-and-mouth Disease
FVO	Food and Veterinary Office
FVS	Food and Veterinary Service
HACCP	Hazard Analysis and Critical Control Point
IPT	Indirect Immuno-peroxidase Test
OIE	World Organization for Animal Health
OV	Official Veterinarian
PCR	Polymerase Chain Reaction Test

RT-PCR	Real-time Polymerase Chain Reaction Test
SFI	Senior Food Inspector
SVI	Senior Veterinary Inspector
SVD	Swine vesicular disease
TRACES	Trade Control and Expert System
TSU	Territorial Structural Unit

Report on the Review of Latvia's Animal Health Statuses for Swine Diseases

Introduction

Consistent with regulations in title 9 of the *Code of Federal Regulations* (9 CFR 92) [1], the Animal and Plant Health Inspection Service (APHIS), with collaboration of the Canadian Food Inspection Agency (CFIA), has conducted a review of the European Union's (EU) animal health statuses for four swine foreign animal diseases, namely, foot-and-mouth disease (FMD), classical swine fever (CSF), swine vesicular disease (SVD), and African swine fever (ASF)¹. As part of this EU review, APHIS has selected Latvia as one of 13 representative Member States included in the review.

APHIS currently recognizes Latvia as free from FMD and SVD, and as low risk for CSF [3]. ASF is present in Latvia and implementation of EU regionalization strategies to combat ASF is ongoing. APHIS conducted this review of Latvia to determine whether conditions justify maintaining its animal health statuses and that of all EU Member States for the above four diseases. The review consisted of a document review for which APHIS has collected and analyzed information relevant to the factors used to conduct evaluations to establish initial animal health statuses as described in 9 CFR Section 92.2 [4]. APHIS collected all information from records of Latvia's Food and Veterinary Service (FVS), the European Commission's (EC) Food Safety Authority (EFSA), the World Organization for Animal Health (OIE), and other publicly available information.

This review report presents a comprehensive representation of Latvia's veterinary infrastructure, livestock demographics, livestock movement controls, surveillance programs, disease control capabilities, import and export requirements, and emergency response systems. For FMD, CSF and SVD, APHIS aimed to determine that: 1) the hazards are not present in Latvia; 2) the hazards are unlikely to be introduced into Latvia and ultimately infect or contaminate the commodity being exported to the United States due to measures taken by FVS; and, 3) if Latvia has an incursion, it will be rapidly detected and eradicated, and exports to the United States will be promptly stopped to prevent the introduction of the hazards into the United States [5]. Since ASF is present in Latvia, APHIS has reviewed its implementation of EU's and Latvia's own ASF regulations, control, and regionalization strategies in domestic and wild boar populations, animal identification systems, trade restrictions and traceability, and the ability to control export procedures and certify its exports in accordance to APHIS import requirements. The above information is followed by APHIS' conclusions and recommendations regarding the animal health statuses for swine diseases in Latvia.

Latvia is a country situated in the Baltic region of Northern Europe. It is bordered by Estonia to the north, Lithuania to the south, Russia to the east, and Belarus to the southeast, and shares a maritime border with Sweden to the west. As shown in Figure 1, Latvia is administratively divided into 110 municipalities and 9 cities with their own city council and administration: Daugavpils, Jēkabpils, Jelgava, Jūrmala, Liepāja, Rēzekne, Riga, Valmiera, and Ventspils. In formal divisions, Riga region, which includes the capital and parts of other regions that have a strong relationship with the capital, is also often included in regional divisions; e.g., there are five planning regions of Latvia, which were created in 2009 to promote balanced

¹ Lists of APHIS-recognized animal health statuses of regions regarding specific animal diseases or pests, or acceptable commodities are available at: [APHIS Animal Health Status of Regions](#).

development of all regions. Statistical regions of Latvia, established in accordance with the EU Nomenclature of Territorial Units for Statistics, duplicate this division [2].

Latvia has the 5th highest proportion of land covered by forests in the European Union, after Sweden, Finland, Estonia and Slovenia. Forests account for 3,497,000 ha (8,640,000 acres) or 56% of the total land area.

Figure 1: Administrative divisions of Latvia



1 Veterinary authority and infrastructure

1.1 Legal authority

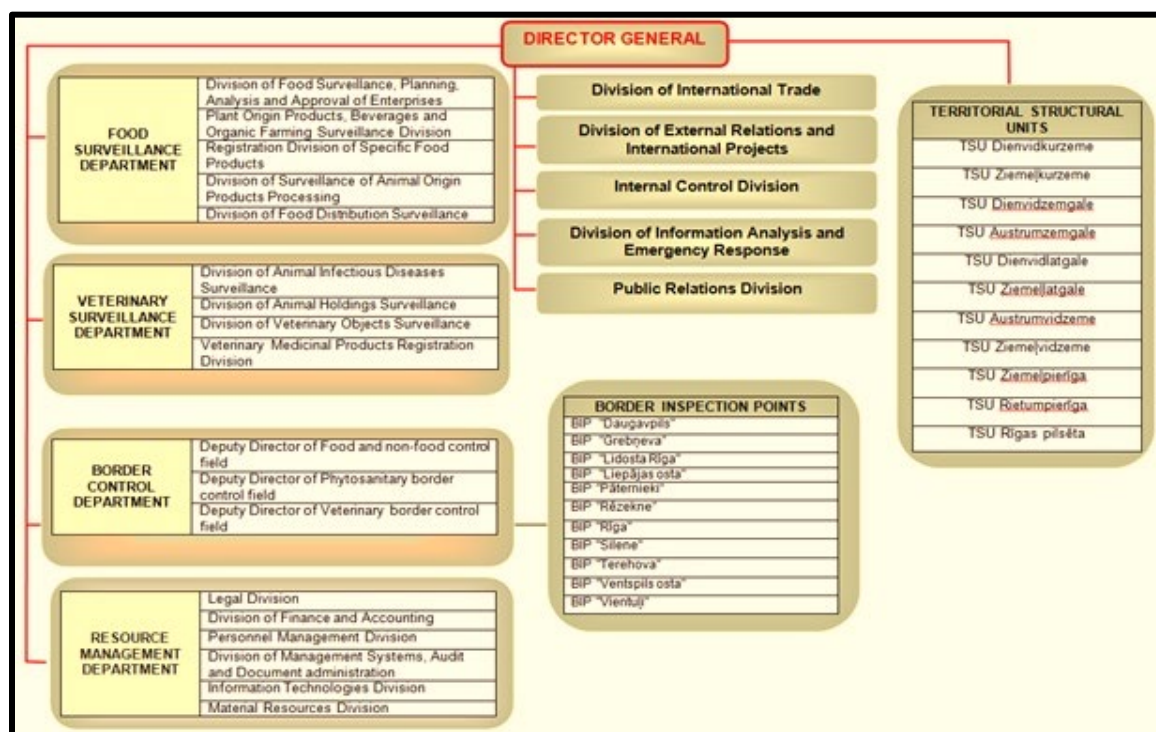
The FVS is the main animal health authority responsible for developing, implementing, and enforcing all animal health, food safety and quality, and welfare policies and regulations in Latvia. The main legal authority for the animal health activities of FVS resides in the Law on Veterinary Medicine (the Law) [6]. The Law regulates the main tasks and responsibilities of FVS, ensures access by government officials to private property, and gives the FVS powers of inspection and enforcement, including the power to impose administrative penalties, impose movement controls, and describes general disease control and eradication measures [6].

Commission Decisions and Regulations are directly applicable in all EU Member States including Latvia without the need for national implementing legislation (although some Member States choose to do so), whereas Council Directives bind Member States to the objectives to be achieved within a certain timeframe and leave the means to the national authorities to transpose into national legislation. Latvia transposes each EC directive by issuing a Council of Ministers Regulation (CMR). Appendix 1 lists Latvia's legal acts and CMRs pertaining to FMD, CSF, SVD, and ASF.

1.2 Organizational structure and functions

FVS is organized into two main levels; the FVS headquarters in Riga is the central level which is divided into 4 departments and 5 divisions and is headed by the Director General who is also the Chief Veterinary Officer (CVO). The second level is organized into 11 Territorial Structural Units (TSUs) all of which are directly under the Director General. The 4 departments are: food surveillance, veterinary surveillance, border control (BCD), and resource management. The CVO is also assisted by 5 divisions which include international trade, external relations and international projects, internal control, information analysis and emergency response, and public relations (Figure 2) [2].

Figure 2: Management structure of FVS



The CVO is responsible for administering all FVS policies and activities. The CVO through FVS central offices establishes the national animal health policies and is responsible for defining FVS direction, issuance of orders, procedures, and instructions for implementing such policies at the local levels. The CVO is also responsible for drawing up and implementing national and foreign animal disease control, response, and eradication programs, surveillance and monitoring programs, food safety inspections and control programs, and import and export control and certification programs. In addition, the CVO and the FVS central office establish annual training programs for veterinarians [2].

At the local level, the eleven TSUs covering the territory of Latvia, are managed by senior food or veterinary inspectors (SFIs and SVIs) who report to the CVO. Within each TSU, responsibilities are divided between food surveillance and veterinary surveillance. SFIs and SVIs are official veterinarians (OVs) responsible for a wide range of control tasks linked to the various food and veterinary control systems. SFIs and SVIs are assigned to a TSU in proportion to the number of establishments in their region [2].

The SVI under the direction of the CVO: 1) determines the line of animal health activities in his/her region; 2) issues instructions to DVOs to undertake specific tasks and controls the manner in which they perform the Inspection tasks; 3) assesses epizootic situation, safety of animal-origin products, animal nutrition and veterinary requirements at their production within the area of region; 4) prepares plans for implementing animal health programs; and, 5) organizes training courses for official and authorized veterinarians. The main functions of the TSUs in the field of veterinary surveillance are to organize and coordinate the surveillance of animal infectious diseases, including prevention and combating measures; such activities are carried out by OV's [2].

The BCD performs controls at the BIPs on live animals and animal products; plants and plant products and other related objects; food and feed safety, covering all food and feed products; and non-food product safety, covering medicines for human and animal consumption, materials and articles intended to come into contact with food [2, 7].

The Animal Disease Diagnostic Laboratory (ADDL) which is a part of the Institute of Food Safety, Animal health and Environment (BIOR) in Riga, is the national reference laboratory for the diseases under review. The ADDL is the only animal disease diagnostic laboratory in Latvia that is authorized to perform testing on CSF, FMD, SVD and ASF. The laboratory is constituted of several divisions and the ones involved in the diagnosis of the mentioned diseases are the Serology Division, the Virology Division, and the Molecular Biology Division [2, 7].

1.3 Human resources

As shown in Table 1, as of September 2019, FVS employed 701 total employees which includes 301 veterinarians, 19 veterinary technicians, 225 animal health professionals, and 225 administrative support personnel. Of the 301 veterinarians, 34 are employed at the central level, 201 at the territorial level, 46 in border control, and 20 in the laboratory service. The total number of employees at each level was 135 in the central service, 387 in the territorial offices, 97 in border control, and 82 in the laboratory service. was, FVS had employed 34338 employees at the territorial level of which 201 are veterinarians. The BCD employs 97 people including 46 veterinarians and the NVRI employs 82 people including 20 veterinarians, 6 technicians, and 35 other health professionals. There are 10 vacant positions; 9 of which are veterinarian positions [2].

Table 1: Staffing levels at FVS Services, as of September 2019

FVS Service	Central	Territorial	Border Control	Laboratory Service	Total
Veterinarians	34	201	46	20	301
Veterinary technicians	0	13	0	6	19
Animal health professionals	31	109	50	35	225
Administrative Staff	70	64	1	21	156
Total	135	387	97	82	701

In accordance with the Law, the SFI or SVI may appoint private veterinarians under a contract to ensure a

pre-slaughter inspection at the slaughterhouse and conduct specific official activities such as sample collection for disease monitoring. To become an authorized veterinarian (AV), he/she must sign an contract specifying the scope, dates, and place of performing official activities and the amount and dates of payment and the contracts are renewed annually; there are currently 320 AVs working under contract with FVS. However, FVS does employ state authorized veterinarians or private veterinarians as inspectors, slaughter veterinarians, and veterinary experts. AVs report their activities to the SFI or SVI monthly who must regularly evaluate their performance. The SVI or SFI also provide AVs with regular trainings related to ASF, CSF, FMD and SVD animal health activities [2, 7].

The law "On Prevention of Conflict of Interest in Activities of Public Officials" regulates restrictions and prohibitions on public officials; prevention of conflict of interest in actions of public officials; declaration of the financial status of public officials and a mechanism for the verification of the declarations of public officials. According this Law all civil servants have to submit Declaration of Public Official to The State Revenue Service. In addition, a system has been set up in the FVS for the prevention of conflicts of interests in accordance with FVS internal' quality procedure KR.04.P.001 "Safeguarding of Independence and Objectivity" which defines the actions necessary to ensure that decisions taken by employees of the FVS are independent and objective. Officials of the FVS are not allowed to take decisions concerning objects in which the official, or his relatives or business partners, have or have had personal or business interests. Before taking the position, the official signs a Statement of Independence and Objectivity, as well as providing a written declaration about property or any other personal interest for any actions which is covered by the area of responsibility of the official [2, 6, 7].

It is permissible to combine a position at the FVS with another job only after permission has been received from the Director General of FVS. An application shall be submitted before starting the two jobs, which is approved by an immediate line manager, then evaluated by the Internal Control Division which assesses whether the combining of jobs will lead to a conflict of interests. Rules regarding the combining of jobs are contained in the procedure KR.04.P.002 "Procedure for combining jobs of persons employed by the FVS". In addition, action scenarios are developed for situations when within the course of the performance of duties, the freedom of action, safety, and health of employees is endangered as well as if a bribe is offered. The procedure is detailed in procedure KR.10.P.164 [2, 6, 7].

1.4 Training

All official and private veterinarians must be graduates of an accredited college of veterinary medicine. In accordance with FVS internal quality procedure KR.09.P.049 "Primary training and designation of newly employed inspectors of FVS" a new employee works for the first three months under the supervision of an experienced employee (training manager). The first two months are spent learning legislation, internal procedures and learning in practice by participating in an inspection. Also, in this period the new inspector has to pass an exam in IT safety and administrative violation. After the two-month period, the new inspector must pass a theoretical exam which consists of test and situation analysis. The exam board consists of the training manager, a technical manager from central FVS, and a training administrator. After the theoretical exam an additional month is spent in practical training. Afterwards, the new inspector must pass a practical examination to demonstrate knowledge and ability to carry out inspection duties independently. Inspectors receive an authorization only after passing the examinations [2, 7].

Ongoing training on the diseases under review is provided by FVS to OVs, inspectors, AVs, and auxiliary officials. All OVs must go through periodic continuing education. The frequency of these training depends on necessity (e.g. emergency situations, amendments in legislation, new functions, audit findings, dissemination of knowledge gained at international training) and planned training activities according with annual training plan. In addition, AVs receive additional training on the diseases under review

including what samples to take in case of suspicion of these diseases [2, 7].

1.5 Financial resources

The budget for the FVS activities including surveillance and emergency response comes from the state budget, service revenues and grants. During 2016 to 2018, the total annual FVS budget has been steady, ranging from €15.3 to €15.8 million (Table 2). There are no additional funding sources to conduct emergency response activities for the diseases under review except the state budget, in accordance with the Law on the state budget for the current year and in accordance with the order of the Cabinet of Ministers on the changes in the annual state budget law. For example, in emergency situations that have so far been linked to outbreaks of ASF, funding has been allocated from the budget program "Contingency Funds" to cover the additional costs caused by the ASF outbreaks. The EC also provides partial indemnity for ASF outbreaks. Financial audits are conducted by The State Audit Office of Latvia and by EC auditors [2, 7].

Table 2: FVS budget, 2016 – 2018

FVS budget, EUR	2016	2017	2018
Expenses coverage resources	15,351,709	15,758,171	15,783,632
Revenue from paid services	3,140,595	3,340,595	3,340,595
Grant	7,314,112	7,459,009	7,799,761
Grant for monitoring/control of infectious diseases (co-financed by the EU)	4,897,002	4,897,002	4,607,917
Funding received from "Contingency features" Program (ASF Outbreaks)	0	61,565	35,359

1.6 Internal and external audits

The CVO, is responsible for managing the internal audit office, which audits the civil service and financial operations of the FVS [2]. Commission Decision 98/139/EC provides the authority for post-accession auditing actions necessary to ensure that the provisions of Community legislation are complied with in a uniform manner. The scope of auditing of a Member State includes the provisions of any of the agreements on sanitary measures applicable to trade in live animals and animal products with third countries. Under Commission Decision 98/139/EC, the audited Member State must investigate and correct any identified sources of non-compliance within a given timeframe or may face sanctions applied by the EC. The Food and Veterinary Office (FVO), which is part of the EC's Health and Consumer Protection Directorate-General, conducts several animal health, animal welfare, and food safety inspections in Latvia prior to accession. Most of these reports are publicly available. Latvian officials indicated that corrective actions were taken as recommended by FVO auditors [2, 7].

2 Status of the hazards in Latvia

FMD was eradicated from domestic swine in Latvia in 1987. The OIE lists Latvia as a FMD free country where vaccination is not practiced. SVD has never been detected in Latvia. ASF has been detected in domestic swine in 2014 with the last detection occurring in November 2019 [2]. The only wild species present in Latvia with epidemiological importance for FMD, CSF, ASF, and SVD, is the central European wild boar (*sus scrofa scrofa*). Wild boar is an invasive species which is widely distributed in Latvia. FMD has never been reported in susceptible wild species. Similarly, there have been no reported occurrences of SVD in wild species. CSF was detected in domestic swine and wild boar from 2012 to 2015. The last

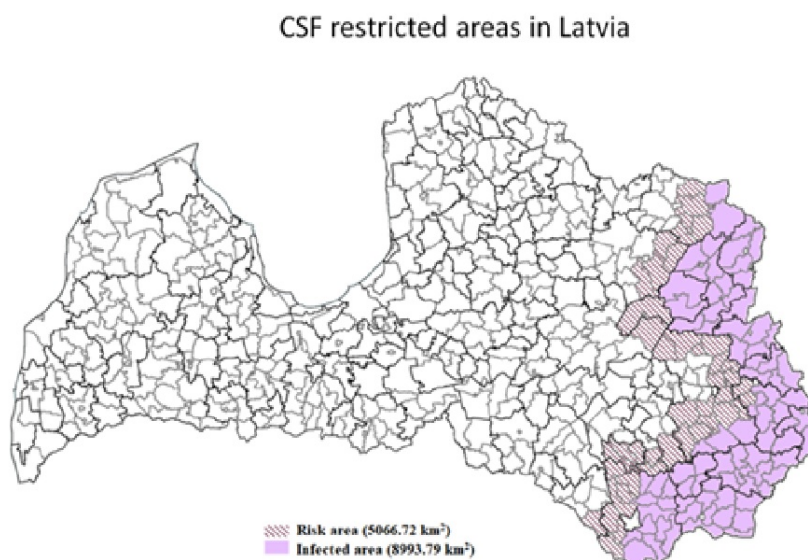
outbreaks of CSF in domestic swine in Latvia occurred in 2014 and the last cases of CSF in wild boar were detected in 2015 (Table 3) [2].

Table 3: Number of CSF outbreaks and cases in Latvia, 2012 – 2015

Year	No. of outbreaks in domestic pigs	No. of affected domestic pigs per outbreak	No. of wild boar cases
2012	3	16	28
2013	0	0	46
2014	1	7	30
2015	0	0	6

In January 2013, Latvia defined a 20 – 50 km wide and 460 km long CSF infected area along the border with Russian Federation and Belarus. The area was defined based on the results of the epidemiological and laboratory findings at the time, the geographical distribution of the disease in this part of Latvia, and the unknown epidemiological CSF situation in wild boar and domestic pigs in Russia and Belarus. Additionally to the infected area, a risk area (at least 10 km wide area) bordering the infected area has been defined (Figure 3). The area is currently listed in the Annex to Commission Implementing Decision 2013/764/EU, which specifies animal health control measures relating to classical swine fever in certain Member States. The OIE has listed all of Latvia as a CSF free country in May of 2019 [2, 7].

Figure 3: Map of CSF infected area



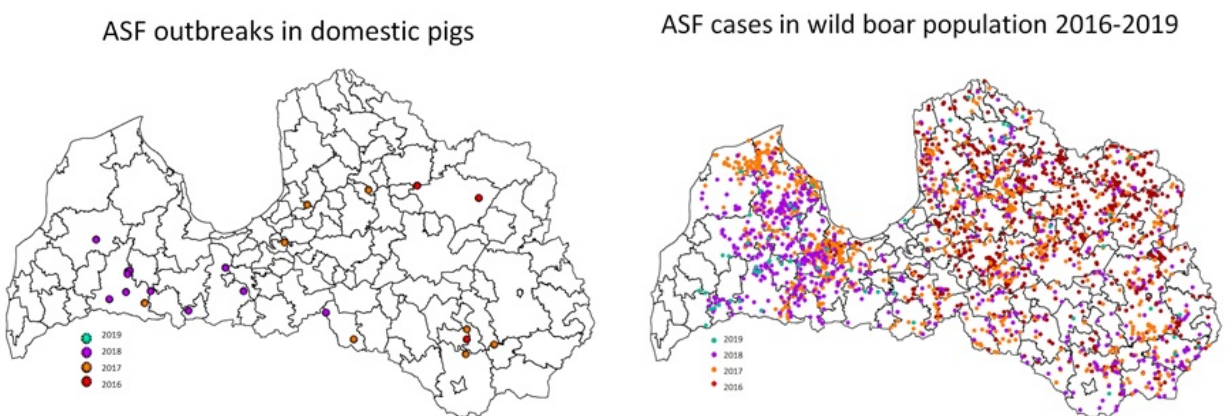
ASF was first detected in Latvia in wild boar in 2014 and has been circulating in this population since that time. Latvian officials stated that the size and dynamics of the wild boar population in the country play an important role in the intensity of occurrence and spread of ASF; estimation of the size of the population more accurately is vital to the success of strategies implemented to manage its size [2]. Since first detected in 2014, the disease has spread in wild boar populations and domestic swine.

As shown in Table 4, since the start of the ASF epidemic in 2014 up to September 14, 2019, there have been 5,060 cases of ASF in wild boar and 64 outbreaks in domestic swine. ASF outbreaks in domestic swine declined from 10 outbreaks in 2018 to 1 outbreak in 2019. Similarly, ASF cases in wild boar declined from 905 cases in 2018 to 313 cases in 2019. Figure 4 shows the geographic distribution of domestic outbreaks and wild boar cases [8]. Latvian officials assume that ASF started in the beginning of June 2014, introduced most probably from Belarus either by infected wild boar and/or infected meat. Possible source of introduction into swine farms is unclear; however, FVS' officials suggest that feeding of fresh grass, grains, or vegetables damaged and contaminated by infected wild boar and human factors such as waste feeding or non-compliance with biosecurity standards, may be implicated as possible sources of ASF introduction [2, 7].

Table 4: Number of ASF outbreaks and cases, 2014 – 2019 as of September 14, 2019

Year	No. of wild boar cases	Number of outbreaks in domestic swine
2014	217	32
2015	1048	10
2016	1146	3
2017	1431	8
2018	905	10
2019	313	1

Figure 4: ASF outbreaks in Latvia, 2016 – 2019



Nearly all ASF outbreaks were reported by owners (passive surveillance) during a very early stage of infection (one sick animal in the stable). Laboratory investigation could confirm that the disease is spreading very slowly within a holding since in most cases, one or few animals in the herd tested positive at the time of detection. In general, no epidemiological links between outbreaks could be found with only few exceptions. Since nearly all outbreaks occurred in areas where also infected wild boar were found, the epidemiological link between infected wild boar and domestic pigs becomes obvious. The multiple outbreaks during a short period might be linked to high ASF mortality in the local wild boar population leading to a high virus load in the environment. Poor biosecurity of the backyard farms can be considered as the main reason of spread of ASF outbreaks [2, 7].

3 Vaccination

Routine vaccination for CSF, FMD, and SVD is prohibited in Latvia. Emergency vaccination may be ordered only by FVS and the EC under exceptional circumstances to prevent disease spread and only in accordance with established official disease eradication rules. Emergency vaccination against CSF was used as an eradication tool in wild boar population between 2013 and 2015 which was approved by the Commission Implementing Decision (2013/90/EU) approving the plan for the eradication of classical swine fever in feral pigs and the emergency vaccination of such pigs in certain areas of Latvia. Currently, there are no commercially available vaccines for ASF; therefore, vaccination against the disease has never been used in Latvia [2].

4 Livestock demographics

Latvia has an extensive rural economy based primarily on small holdings. In general, FVS distinguishes the following main categories of holdings taking into account production purpose when planning official controls [2, 7]:

- commercial holdings where livestock is reared and/or primary products are produced for placing on the market;
- holdings (assembly centers or isolation premises) at which bovine or, at lesser extent, ovine animals originating from different holdings are grouped together to form consignments of animals intended for export. There are no assembly centers for swine;
- non-commercial holdings where products are used for private domestic consumption or hobby animals are kept; and,
- non-commercial holdings where livestock is kept on temporary/seasonal basis and products are used for private domestic consumption.

The number of domestic swine and farms in 2018 in Latvia is shown in Table 5. There were 323,786 heads raised in 5225 farms. Figures 5 and 6 show the geographic distribution of commercial and non-commercial farms in Latvia during 2018. There are two main systems for raising swine or producing swine meat and products: commercial and non-commercial farms which are distributed all over the country. Ownership of swine for personal consumption in small farms is common in Latvia which appear to be concentrated in the east. Most swine farms in Latvia are small farms and temporary/seasonal farms which are households keeping 1-9 pigs for fattening and personal consumption (Table 5). Some small farms are considered commercial if they are moving own sows or move animals to slaughter (Figure 6). Wild boar meat is for personal consumption by hunters [2].

Table 5: Categorization of swine farms in Latvia

Number	>10000	1000-9999	50-999	10-49	1-9	Temporary or seasonal	Total
Holdings	40	44	51	535	3656	899	5225
Swine	284460	13527	3459	10150	10577	1613	323786

Figure 5: Distribution of commercial farms by size in Latvia, 2018

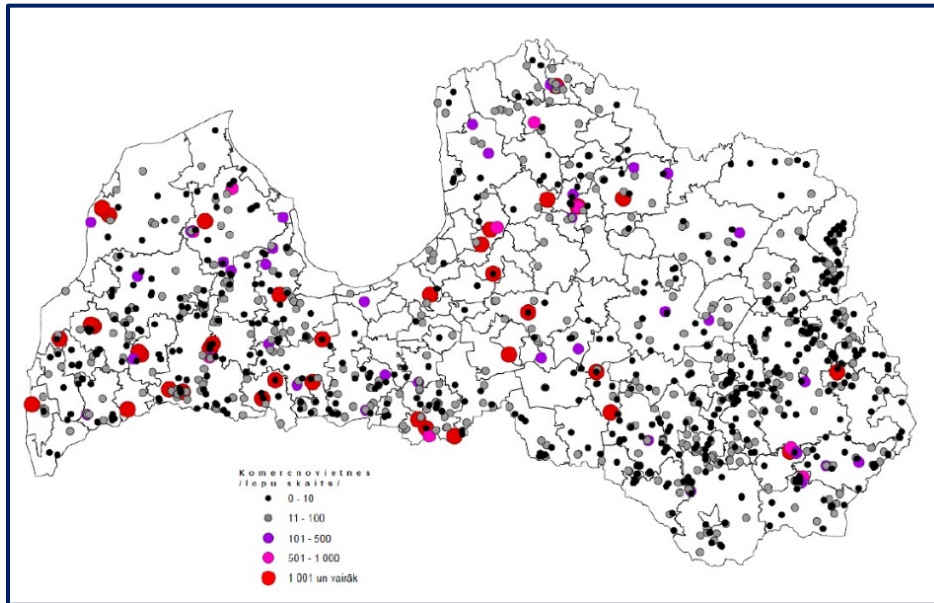
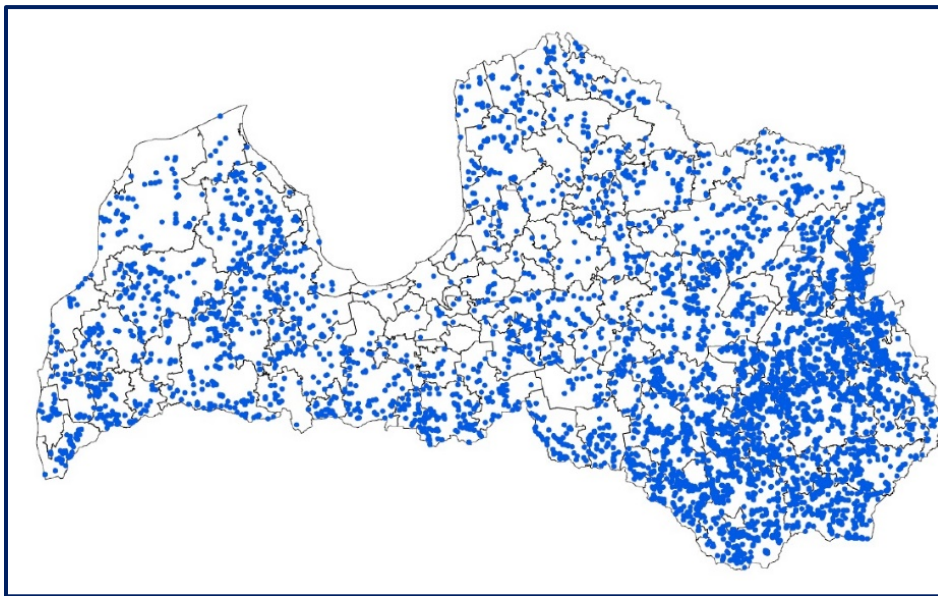


Figure 6: Distribution of non-commercial farms



Movement and trade of livestock within the country takes place directly from farm to another farm or to a slaughterhouse. Animal gatherings for transport to slaughterhouses are carried out mainly by slaughterhouses or dealers without using animal markets or other interim premises. There are approved assembly centers for cattle (5 centers) and to a lesser extent for sheep. There are no assembly centers for swine in Latvia [2, 7].

Regarding the wild boar population in Latvia, it's important to note the Latvia has the 5th highest proportion of land covered by forests in the EU after Sweden, Finland, Estonia, and Slovenia. Forests cover 56% of the total land area. As shown in Figure 7, wild boar are present all over Latvia with higher

densities in the western part of the country. Figure 8 shows that the dynamics of the wild boar populations has been steadily declining since 2014 possibly due to hunting and dying from infection with the ASF virus [2].

Figure 7: Density of wild boar – 2018/2019 hunting season

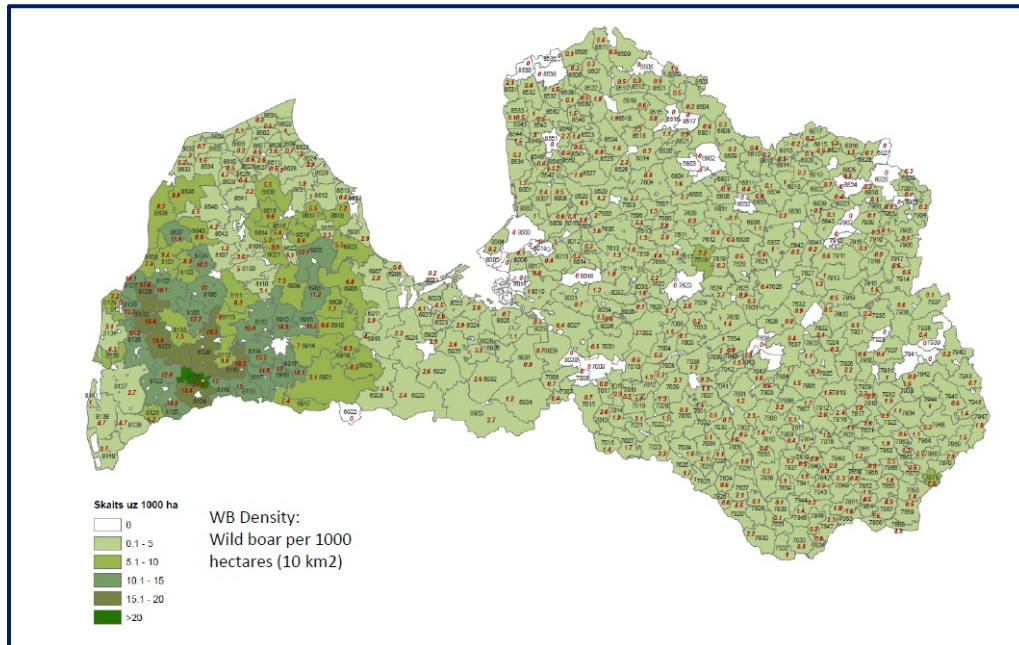
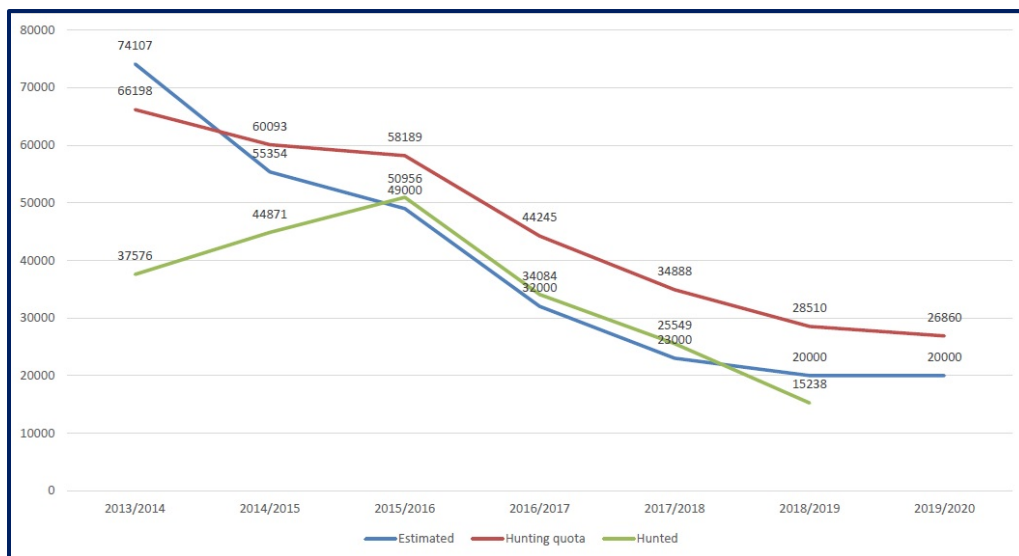


Figure 8: Dynamics of wild boar population by hunting season, 2013 - 2019



5 Identification and registration

All swine, cattle, sheep, and goats must be identified and all farm keeping these species in Latvia must be registered in accordance with the following regulations [2]:

- Regulations of Cabinet of Ministers 26.03.2019. No. 134 “Procedures for registration of farming animals, the herds and holdings thereof and the procedures for identification of farming animals”;
- Commission Regulation (EC) No. 494/98 of 27 February 1998 laying down detailed rules for the implementation of Council Regulation (EC) No. 820/97 as regards to the application of minimum administrative sanctions in the framework of the system for the identification and registration of bovine animals;
- Regulation (EC) No. 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products; and,
- Commission Regulation (EC) No. 911/2004 of 29 April 2004 implementing Regulation (EC) No 1760/2000 of the European Parliament and of the Council as regards to eartags, passports and holding registers.

Livestock owners are required to register their farms regardless of the intended use for the animals. Registration and identification data are maintained by the Agricultural Data Center (ADC) in accordance with requirements laid down in the Cabinet Regulations No.393 “Livestock and aquaculture animal, herd and holding recording procedure, as well as livestock tagging procedure”. The ADC conforms to EU requirements and has been evaluated and approved by the EC. In order to register a farm, the owner must provide the ADC with the following information: the location of the farm and geographical coordinates, and the name, identification, address and contact details of the owner and the person responsible for the animals. The ADC allocates a unique identification number to each farm [2, 7].

Cattle, sheep and goats are individually identified by two ear tags bearing the same unique identification code and the logo of ADC which allocates the ear tags and the identification code consisting of the country code LV and 12 digits. Cattle moved between EU Member States are issued a passport by ADC. Swine are identified on the farm of birth by one ear tag or tattoo displaying the unique registration number of the farm of birth. The owner is responsible for acquiring and applying the means of identification [2, 7].

All identification codes, the date of identification and details on each individually identified animal must be recorded in the register kept at each farm (in paper or electronic form) and transmitted to the centralized computer database maintained by the ADC. The following information on each individually identified animal shall be recorded in the register kept at each farm (in paper or electronic form) and transmitted to the ADC database: the date of birth and death or slaughter of each identified animal. In addition, owners of swine farms are required to submit a monthly inventory to the ADC on number of animals born and dead or slaughtered. Owners keeping fattening swine for self-consumption may derogate from this requirement and submit the inventory twice a year [2, 7].

FVS has authority under the identification and registration regulation to monitor and enforce compliance with identification. The FVS officials conduct on-the-spot checks on farms including crosschecks comparing information in the farm registration with information in the ADC. Controls are carried out in accordance with a standard operation procedure consisting of a checklist, references to legislative provisions, and guidelines for inspectors. For each control a written record is drawn up. In the case of non-compliances, a deadline for the owner of animals to rectify the non-compliance. Control results are entered in the ADC database. The FVS has the authority to apply appropriate penalties such as animal movement restrictions and administrative sanctions (warnings and fines) as laid down in legislation. Any

movement restrictions that are applied must be entered in the ADC database. Table 6 shows the percentages of non-compliances detected for inspected swine farms and swine within the farms [2, 6, 7].

Table 6: Percentages of non-compliances with identification and movement requirements for swine farms, 2016 – 2018

Year	% inspected holdings without identification	% inspected swine in holdings with no identification	% holdings with no movement notification	% inspected swine in holdings with no movement notification
2016	5.6%	0.21%	6.7%	0.24%
2017	2.0%	0.13%	3.6%	0.08%
2018	2.4%	0.04%	4.7%	0.07%

6 Disease detection

6.1 Passive surveillance and reporting

Passive surveillance is conducted through FVS's nationwide mandatory notification program for reportable diseases. All of the four diseases under review are subject to notification in accordance with the CMR No. 127 of 21 February 2012 "Regulation on notifiable, registrable and state control animal diseases infectious and procedures for the provision of information about these diseases to Food and Veterinary Service". Any animal owner/holder or any other person who is in possession of relevant information must immediately in one day, using any means of communication, report to a veterinarian the suspicion of animal illness compatible with the disease under review [2, 6, 7]. Following these regulations, FVS issued the procedure No KR.10.P.256 "Instruction on notification of highly dangerous infection diseases" where the detailed steps for official veterinarians and practicing veterinarians are reflected - the purpose of this procedure is to establish a common procedure for collecting, recording and notification of particularly dangerous infectious animal diseases in the territory of the Republic of Latvia. As mentioned above, nearly all outbreaks of ASF in domestic swine were reported by owners very early in the course of the disease [2, 7].

All notification are subject to investigation and emergency response measures in accordance with the Act and notification to the EU and other Member States is required via the Animal Disease Notification System (ADNS) within 24 hours of (1) confirmation of an outbreak, and (2) removal of restrictions after eradication of the outbreak. As an active member of the OIE, Latvia has promptly reported all incidents of the diseases under review to the OIE as well as its trading partners [8]. Latvia has also promptly reported all ASF outbreaks as expected. Wildlife species susceptible to the diseases under review are also subject to passive surveillance and notification and failure to report will result in heavy fines [2].

FVS also uses other animal health program activities as opportunities to enhance its passive surveillance and disease detection capabilities such as: during inspections for animal movement controls; export certification; activities related to disease control and eradication programs; slaughterhouse inspections; and response to disease reports [2].

6.2 Active surveillance

FVS implements both active and passive surveillance strategies for rapid detection of incursions of the diseases under review. Latvia is considered free of FMD and SVD; therefore, surveillance strategies are mainly directed at monitoring its free status rather than demonstrating freedom from these diseases [2].

6.2.1 Active surveillance for CSF

Latvia conducts active surveillance for CSF in the infected CSF zone in accordance with a surveillance scheme for clinical and laboratory testing. All holdings located in the infected zone were classified according to the number of pigs and the risk of spreading the disease and surveillance was conducted as follows [2, 7]:

- Category I: Large commercial farms with more than 200 pigs raising breeders and fatteners – clinical inspections by OV's every six months (2/year) and serological testing to detect 10% antibody prevalence with 95% confidence twice a year;
- Category II: Small breeding farms with one or more breeding animals – clinical inspections by official vets every six months (2/year) and serological testing to detect 5% antibody prevalence with 95% confidence twice a year;
- Category III: Small fattening farms with more than 10 fattening pigs – clinical inspections by official vets every six months (2/year); serological investigations to detect 10% antibody prevalence with 95% confidence twice a year; and,
- Category IV: Backyard holdings raising up to 10 fattening pigs for own consumption – OV's collect samples for laboratory testing in case of suspicion, and from randomly 20% of holdings to allow a detection of 10 % sero-prevalence with 95 % confidence.

For CSF in wild boar, samples of blood or blood clots, tonsils, or lymph nodes are collected from all hunted wild boars in the CSF infected and risk areas.

All testing was conducted using Enzyme-Linked Immunosorbent Assay (ELISA) and real-time polymerase chain reaction test (RT-PCR). Table 7 shows the number of samples collected from domestic swine and wild boar and tested for CSF. The number of CSF outbreaks is shown above in Table 3 [2, 7].

Table 7: Number of CSF serological and virological tests in CSF free, risk, and infected areas, 2016 – 2018

Type	2016	2017	2018	TOTAL
ELISA tests in free area	1014	1033	1	2445
RT-PCR tests in free area	25	194	398	375
ELISA tests in risk area	59	3	156	65
RT-PCR tests in risk area	8	2	3	10
ELISA tests in infected area	3068	3114	0	8345
RT-PCR tests in infected area	1	43	2163	44

6.2.2 Active surveillance for ASF

All ASF suspect cases and dead pigs are sampled and tested for ASF by ELISA and RT-PCR. Domestic swine moving out of ASF-restricted zones must be tested depending on the purpose of movement and the destination (see section 7.5 on movement controls). In areas of Latvia located outside of restricted zones, samples are collected and tested from domestic swine following the notification of a suspect ASF case [2]. Surveillance programs and preventive measures are applied to all the holdings situated in ASF restricted areas. Pig holdings are under strict health monitoring program and all sick or dead pigs, for which ASF cannot be excluded on clinical or other grounds, are inspected by an OV and tested for ASF in accordance with the provisions laid down in the Commission Decision 2003/422/EC of 26 May 2003 approving an ASF diagnostic manual [2, 7].

All wild boar that are hunted, found dead, or killed in road accidents in ASF-restricted areas are sampled and tested. In free areas of Latvia, carcasses found dead (including wild boars killed in traffic accidents) and any hunted wild boar showing any abnormal behavior or signs of the disease are sampled and tested. Samples are collected by OVs, AVs, or hunters who are trained to take samples and to recognize signs of ASF. Table 8 shows the number of samples collected from domestic swine and wild boar for ASF testing during active and passive surveillance activities [2, 7].

Table 8: Total Number of samples tested for ASF during active and passive surveillance, 2016 – 2018

Type of surveillance	2016	2017	2018	Total
Active wild boar	12,332	13,291	11,298	14,181
Passive wild boar	847	984	360	14,275
Active domestic swine	2,613*	5,195	7,153	14,961
Passive domestic swine	20	228	547	795

6.3 Laboratory Support

As mentioned above, all diagnostic and confirmatory tests for the diseases under review are conducted at the ADDL which is part of BIOR. The BIOR is accredited according to standard ISO/IEC 17025 (General requirements for the competence of testing and calibration laboratories) since 2002; however, the quality system according to this standard were implemented since 1997. The ISO/IEC 17025 standard is applicable to testing and calibration of laboratories to perform: Chemical, physical and physical-chemical tests, immunoassay tests, microbiological and bacteriological tests, parasitological tests, serological tests, virological tests, pathological anatomical and histological tests, radiological tests, sensory evaluation, molecular biological tests, detection and quantification of genetically modified organisms [2]. The Quality Management System of BIOR is also regularly controlled by the State Agency "Latvian National Accreditation Bureau" (LATAK). As mentioned before, all laboratories and most of the methods used for the diagnosis of CSF, FMD, SVD and ASF are accredited [2].

The BIOR has a centralized model for sample delivery from all over the country via three transportation routes. The BIOR network of sample collection and delivery is shown below in Figure 9. The system allows for collection of samples from 25 collection points located in main cities of the largest parishes of the country. This system of logistics ensures delivery of the sample to the laboratory in 24 hours [2].

Figure 9: BIOR's sample collection and delivery network



The ADDL uses appropriate methods for analysis of samples taken during official controls as provided in legislations. The methods used are:

- FMD – ELISA, ELISA (Ag specific), Real time PCR (RT-PCR), sequencing.
- SVD – ELISA, virus neutralization (VN), RT-PCR, sequencing.
- CSF – ELISA, ELISA (Ag specific), virus isolation, VN, RT-PCR, CSF oral vaccine virus titration, sequencing.
- ASF – ELISA, Immunoperoxidase test (IPT), Immunoblotting (IB), RT-PCR, sequencing.

Accredited standard methods for diagnosis of the diseases under review are based on the OIE Terrestrial Animals Diagnostic Manual and the guidelines of the EU reference laboratories (EURL). The specificity and sensitivity of tests is validated by participating in the annual inter-laboratory proficiency testing organized by EURL for the four diseases. Sequencing tests are not accredited. Testing results are reported immediately after the completion of the testing by email via the united electronic system [2].

7 Disease response

All legislations in Latvia regarding response and control of the diseases under review in domestic pigs and wild boar are in line with relevant EC legislations. Certain EC regulations are directly applicable to all Member States while other ones are transposed into Latvian legislations. As mentioned previously, disease reporting is required in accordance with EU and Latvian laws. All animals demonstrating clinical signs suggestive of foreign animal diseases must be immediately reported to FVS TSU and the information is passed to the central FVS offices.

Suspect cases of ASF are investigated immediately by the SVI and VIs in the TSU in accordance with procedures KR.10.P.186 and KR.10.P.256 [2, 7, 9]. The SVI must immediately act to ensure that:

- Within 2 hours, the VI will start official measures at the holding to prevent the spread of the disease to check the affected holding by drawing up the inspection report of the holding;
- The VI conduct an inventory of all animals in the holding by category indicating the number of animals dead, slaughtered, infected or suspected of being infected, paying attention to the traceability, identification and registration of swine;
- The VI must carry out clinical examinations of all animals in the holding and take samples for laboratory tests to confirm or exclude the ASF in the holding. Samples are sent to the BIOR for laboratory examination as soon as possible;
- The SVI determines temporary movement restrictions for the holding until the ASF is confirmed or excluded. The VI prohibit the transfer of swine in/out of the affected holding and impose control measures on rodents. When assessing the situation, the SVI may decide to extend the restrictions on the movement of animals to other species;
- The VI must conduct an epidemiological investigation to find out the estimated period of time during which the ASF virus was introduced to the holding and possible pathways of introduction (e.g. people, vehicles, swine carcasses, semen, meat or other materials), and identify all contact holdings;
- The SVI must send information electronically to the FVS central office as soon as possible, prepares and sends information on the potentially affected holding electronically. The information should include: a) suspect case report; b) an epidemiological investigation report; and, c) notification of temporary movement restrictions;
- The SVI must organize the tracking of swine movements (at least for a prior period of 6-8 weeks) that have left the ASF affected holding;
- At FVS central offices, the CVO must convene a meeting of the FVS operational group as soon as information on a possible infection in the holding is received. The operational group must:
 - contact the BIOR prioritize testing of samples sent;
 - contact the ADC to provide analysis for movement of swine and other species in the holding for at least the last 15 days and identify the nearest holdings within a radius of 3 and 10 km around the affected holding;
 - analyze the movement of pork, pork production;
 - perform epidemiological data analysis to identify possible entering pathways of disease, and predict possible directions for its spread; and,
 - take a decision on further action in the case of suspicion of disease and immediately inform the FVS TSU senior veterinary inspector.
- When evaluating the epidemiological situation, the CVO in cooperation with the FVS operational group may decide and issue an order for depopulation of all susceptible animals in the potentially affected holding to prevent further spread of the disease.
- Until future guidance from the FVO central office, temporary restrictions are set by the FVS TSU will apply that prohibit without the authorization of SVI:
 - Prohibition on movement of live swine, swine genetics (semen, ova, and embryos), dead pigs, pork and pork products, animal feed, instruments, and materials or waste capable of transferring ASF.

- No entry and exit of personnel in/out of the affected holding unless a disinfection procedure has been carried out with agreement from the SVI.
- Entrances and exits to the holding must be carpeted with a suitable (disease-agent - effective) disinfectant.
- All persons entering or leaving swine holdings comply with and follow appropriate hygiene measures and disinfection to reduce the likelihood of spread of ASF virus.
- All vehicles are carefully disinfected before they leave or leave the holding and are with a written permission by the SVI.
- Restrictions are applied, until negative ASF results are obtained from BIOR. If the laboratory confirmed ASF in the examined material, the CVO shall determine further action by order and impose restrictions; and,
- If the results of the epidemiological investigation show that ASF may have spread from or to holdings located in the other Member States, the FVS central office shall immediately inform the participating Member States and the EC. Upon suspicion of ASF.

Upon confirmation of ASF, control measures in accordance with Council Directive 2002/60/EC are implemented [10]. A 3-km protection and 7-km surveillance zones (10-km in total) are established and FVS conducts inspections and a census of all pig keepers in the two zones. Low risk commodities may be traded under certain additional risk mitigations and enhanced surveillance inside and outside the infected region is conducted as mentioned above. Specific response measures applied following confirmation of ASF include [9]:

1. All swine in the infected holding are depopulated immediately under supervision of FVS staff. Depopulation must be carried out in such a way as to avoid the risk of spreading the virus during transport and putting the animals down. FVS provides special depopulation and work safety training to individuals performing these activities.
2. Sufficient number of samples are randomly taken from the pigs to attempt to determine the source of the virus and the time elapsed from the virus entering the holding until it was confirmed. The number of samples for virological testing must take into account the range of tests that may be performed, the sensitivity of the laboratory tests that will be used and the epidemiological situation.
3. Meat of pigs slaughtered during the period between the probable introduction of the ASF into the holding and start of official measures must be traced and destroyed. Similarly, semen, ova or embryos collected from the holding during the same period are traced and destroyed.
4. Carcass disposal must be carried out in such a way as to prevent spread of the virus, taking into account risks of groundwater contamination (burial), spread of fires (burning on location), etc. If possible, carcasses may be transported to specific disposal sites using designated means of transportation, taking into account the distances between the location of the disease outbreak and the disposal methods. Transport is allowed only after an assessment of the risk of transporting materials contaminated with the virus from the location of the disease outbreak.
5. Carcasses are transported in covered, sealed trucks which are disinfected prior to or after loading and immediately following the transport. Trucks are allowed to leave the holding provided a thorough inspection is carried out and leakage is prevented. All disposal trucks entering or leaving the infected farm are registered in a logbook.

6. Person(s) in charge of disposal operations are assigned by the district FVS office and is/are on call on a constant basis to control all disposal activities, registration of incoming and outgoing, and disinfection operations. A cleansing and disinfection plan must be approved by the district FVS office.
7. Once depopulation is complete, all materials and waste likely to be contaminated such as feeding stuffs, bedding, manure and slurry collected during depopulation must be processed by ensuring the destruction of the ASF virus.
8. All buildings used for housing the pigs, vehicles used for transport of carcasses, and equipment, likely to be contaminated are cleaned and disinfected.

Specific measures carried in the protection and surveillance zones include [9]:

- Conducting a census of all swine holdings within the zones; all holdings in the protection (within 7 days) and surveillance zones (within 14 days) must be clinically inspected and informing all owners of their obligation to notify the VI of all sick or dead pigs.
- Prohibiting the movement of live pigs, swine genetics, and swine products and by-products into/out of the protection and surveillance zones and prohibiting movement of other species of animals in the protection zone only.
- In every district or part of a district that fall within an ASF protection area, a SVI must collect samples for ASF testing from pigs: 1) found dead where an infection with the ASF virus may not be ruled out, showing atypical ASF clinical signs, or having fever and showing signs of ASF or fever and signs of haemorrhagic syndrome; and, 2) pigs slaughtered for own consumption on a farm or when ASF is suspected.
- Following a period of 40 days in the protection and surveillance zones starting from the date of completion of cleaning and disinfection the SVI may authorize direct movement of pigs from holdings in trucks sealed by a FVS official to:
 - a slaughterhouse designated by the competent authority, preferably within the protection or surveillance zone for the purpose of immediate slaughter,
 - a processing plant or a suitable place where the pigs are immediately killed and their carcasses are processed under official supervision (fresh meat from these pigs must either be processed or marked with a special oval mark), and
 - in exceptional circumstances, the SVI may allow movement of pigs to other premises located within the protection zone.

The CVO may allow to reduce the movement restriction time period in the protection and surveillance zone from 40 days to 30 days depending on the nature of the epizootic and laboratory test results.

8 ASF control

In 2014, the EU adopted prevention and control strategies to be applied when ASF is suspected or confirmed either in holdings or in wild boars which are designed to prevent the spread of ASF and to eradicate it from affected regions (Council Directive 2002/60/EC) [11]. Latvia follows these strategies which include: criteria for geographically defining ASF regions; enhanced biosecurity measures; active and passive surveillance; movement controls; wild boar management; education and outreach campaigns; and import and export controls [2, 7].

8.1 Regionalization

Regionalization is applied in Latvia as set up based on Commission Decision 2014/709/EU to ensure the best possible disease control strategies to minimize the negative impact of ASF outbreaks on the EU single market (intra-EU trade) and on exports to third countries without lowering the level of safety of the commodities that are exported [11]. The criteria for establishing ASF regions are harmonized across the EU and tailored to the Member States, considering local factors such as domestic swine and wild boar demographics and are amended as the epidemiologic situation changes [12]. Commission Decision 2014/709/EU specify clearly defined roles for the EC and Member States, with emphasis on urgent adoption of emergency response measures and rapid flow of information [7, 11].

Restricted areas are implemented in consultation with the EC and they are listed by groups (Parts I – IV) based on the epidemiological situation of ASF in the region and the defined level of risk in the Annex to as follows [11, 12]:

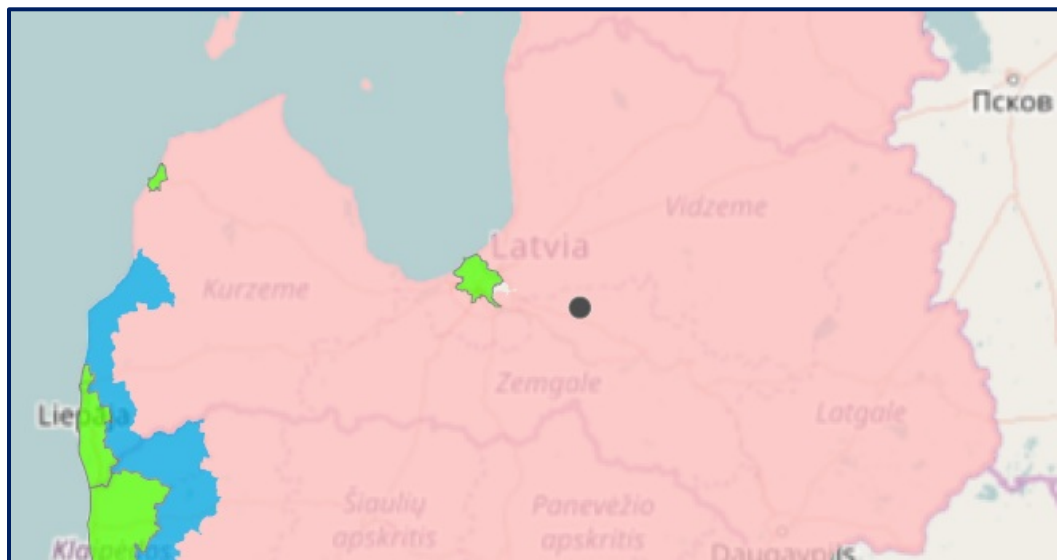
- (1) Part I – no disease and higher risk due to proximity with ASF infection;
- (2) Part II – presence of ASF only in wild boar;
- (3) Part III – presence of ASF in domestic pigs and wild boar; and,
- (4) Part IV – long standing persistence of ASF in pigs and wild boar.

However, the classification of Member States' territories or parts thereof as Parts I, II, III and IV according to the swine population concerned may need to be adapted by taking into account additional risk factors due to the local epidemiological situation and its evolution, especially in newly infected areas where less information is available about the disease epidemiology under different ecological systems. Larger areas can be restricted based on administrative and/or geographical borders. Decisions are published in the Official Journal of the European Union in 23 languages [2, 7, 11, 12].

FVS establishes restricted areas based on epidemiological situation (area is appropriate for surveillance, eradication, wildlife control, movement control). Other practical factors considered include: the size of the area; the lay of land and presence of forests and natural or artificial boundaries (roads, mountains, rivers, lakes); existence of administration boundaries; and trade patterns (location of breeding holdings that supply a large number of farmers; and location of slaughterhouses and/or presence of meat processing plants) [2].

Figure 10 shows that, as of November 25, 2019, most of Latvia has been regionalized as Part II (pink) with presence of one Part I area (blue) in the west and three free areas (green) one around Riga and 2 in the west on the Baltic Sea [13]. An interactive map of ASF-restricted areas of the EU is available on the EC's website at this [link](#).

Figure 10: ASF-restricted regions in Latvia



The whole ASF regionalization system will only work if the overall EU management of animal diseases (identification and traceability, movement certification and checks, disease reporting, compensation mechanism, etc.) are implemented. The cornerstone of the system is the origin of the pigs and the set of measures applied in the holdings of origin, built around whether adequate risk mitigating measures can be implemented while at the same time allowing derogations to trade/movement prohibitions specific to each ASF-restricted part [2].

8.2 Biosecurity

FVS has enforced strict biosecurity requirements for pig holdings since 2015. All swine farms regardless of size are required to meet minimum biosecurity requirements in accordance with CMR No. 291 “Regulations Regarding a Set of Biosecurity Measures for Holdings Where Livestock is Kept”. The main objectives of the biosecurity requirements are to mitigate risk of introduction of pathogens of infectious diseases related to: introduction of new animals; farm staff and visitors; transport vehicles; sourcing of feed and water; use of farm equipment; contact with wild boars; dead pigs, byproducts, and waste; poor disinfection; and, pests such as rodents, insects, etc. Minimum biosecurity requirements for farms include [2]:

1. An animal owner or keeper must prepare an action plan with a set of biosecurity measures (the action plan) for implementation in the holding, except those animal owners or keepers who keep fattening porcine animals, without moving them from their holding to other holdings or a slaughterhouse (non-commercial holdings).
2. Swine must be kept in enclosed protected building to prevent the access of wild boar.
3. The owner of the animals shall ensure that no feral pig carcass or feral pig parts or any other infected materials or objects which may spread an infectious disease are taken onto the holding.
4. Bringing into the pig holding any dead wild boar, carcasses of wild boar, parts of carcasses of wild boar and animal by-products, and any materials or items which may be contaminated with the ASF virus is prohibited.
5. Carrying out any activities related to the handling of pigs by persons who participated in hunting game or trapping within previous 72 hours is prohibited.

6. Feeding food waste and green fodder to porcine animals (any type of vegetable feed which is fed raw to pigs) is prohibited.
7. The holding shall be regularly cleaned and disinfected, and pest and rodent control programs must be applied.
8. Footwear disinfection shall be ensured at the entrance and exit of the holding.
9. A holding must have a place for isolating or separating sick pigs or pigs introduced from other holdings according to the procedures laid down in the action plan of the measures.
10. A holding must have a place, space, construction or equipment for storing animal by-products which are waterproof, inaccessible to unauthorized persons or wild animals and birds, suitable to the number of animals and obtained amount of animal by-products; and is located as close as possible to the entrance to the holding or at a place accessible to vehicles collecting the by-products without crossing the territory of the holding.
11. Access of unauthorized persons to animal holdings should be limited. Visitors who must enter the holding must be registered and informed regarding the biosecurity measures and provided with disposable or clean protective clothing and protective footwear.
12. Closed feed storages must be regularly cleaned and disinfected as necessary and open type storage facilities must be regularly cleaned, disinfected, and deratized.
13. Swine buildings can only be accessed by persons authorized to perform activities using protective clothing and protective footwear used only for the purposes of handling pigs in the holding.
14. A register of all vehicles that arrive to the holding and a register of persons entering into the swine buildings must be kept;
15. Practicing hygienic measures necessary to reduce the risk of spread of ASF, including disinfection of hands and footwear;
16. Regular cleaning and disinfection of equipment used for handling the pigs.
17. Place disinfection mats in front of entries to buildings where pigs are kept as well at the exits. In Parts I, II, and III areas disinfection mats should be also at the entrances/exits of the farm and no unauthorized entry to the buildings where pigs are kept is allowed.

FVS has conducted biosecurity inspection of swine holdings since 2015. The frequency of inspections for all types of swine holdings is defined in the annual FVS Inspection Plan for Veterinary Surveillance, which varies depending on the scale and type of production (including non-commercial purpose) and location of the holding taking into account ASF regionalization. If the owner or keeper of the animals does not comply with the biosecurity requirements, FVS will impose animal movement restrictions and administrative sanctions (warnings and fines). During biosecurity inspections, OV's discuss biosecurity provisions with swine keepers and provide them with biosecurity information leaflets.

Biosecurity requirements for hunters during the hunting and primary processing are included in CMR No. 226 "Regulation on the complex of biosecurity during hunting" which specifies requirements for handling, transport, processing of carcasses, marking, and sample collection and submission. FVS carries out numerous activities to enhance the awareness of swine keepers and hunters in relation to ASF and biosecurity measures such as: prepare and distribute booklets, posters and leaflets; information campaigns through television, radio and local newspapers; and posting of publications on the FVS website [2].

8.3 Movement controls

As mentioned previously, when pigs move from one farm to another, each pig must be identified by an eartag with the herd number in one ear. In case the pigs move directly to the slaughterhouse, they can be identified by a tattoo of the herd number on the hind leg. For domestic movement in general, animal owners, representatives of animal assembly centers, and OV's in slaughterhouses are responsible for the notification of all incoming and outgoing movements. The following information shall be reported: the identification number of the farm/establishment; the name and identification of the owner; the identification codes of the animals moved; the identification number of the farm/establishment of destination and the name and identification of the next owner; data concerning the means of transport; and the date and time of departure and arrival. The information on movements shall be registered and kept on each farm/establishment (in paper or electronic form) as well.

All information regarding movement of pigs must be reported to the ADC. FVS assigns an appropriate health status to farms with respect to relevant diseases for animal species concerned. The health status of the animal species kept at the farm and imposed movement restrictions are recorded in the ADC database. Animal movement within the country is allowed if there are no movement restrictions imposed on the farm and/or the animals in question, taking into account conferred health status.

Slaughterhouses use the ADC database to create a pre-notification movement document at least 24 hours before the movement. Along with the pre-notification document, the database displays information on animal health status and movement restrictions that is checked by the OV of the slaughterhouse.

Commission Implementing Decision 2014/709/EU lays down animal health control measures on the movement, dispatch of pigs and certain pig products and marking of pig meat from the areas set out in the Annex to that Decision in order to prevent the spread of that disease to other areas of the Union. All requirements and derogations listed in the above EC Decision for movement of pigs and pig products are complied with in the whole territory of Latvia. Domestic swine must be sampled by an OV and tested for ASF if transported outside of an ASF-restricted area (Parts II and III), sent to slaughter in these areas or if the meat from such animals is sent outside the areas, or slaughtered for own consumption (Part III).

Official controls on animal movements are carried out by FVS. During controls information in the database and situation at the farm is verified. Controls are carried out in accordance with a standard operation procedure consisting of a check list, references to legislative provisions and guidelines. For each control a written record is drawn up. In the case of non-compliance, a deadline is set for the owner of animals to rectify the non-compliance. Control results are entered in the ADC database. Appropriate penalties are imposed on an operator in the event of a breach of the movement provisions: animal movement restrictions and administrative sanctions (warnings and fines) as laid down in legislation.

8.4 Lifting of restrictions and repopulation

Certain conditions apply for lifting of restricted areas (Parts I – IV) [2, 7, 9, 11–12]:

- Part 1: based on full consideration of the risks based on the whole set of epidemiological data in a wider geographical and temporal context.
- Lifting Part II regionalization and reverting to Part I: no ASF cases in wild boar in the past 12 months. Reduction of the 12 months period might be allowed in specific situations depending on the overall epidemiological situation of ASF of the country and justifications provided by relevant veterinary authority.

- Lifting Part III regionalization and reverting to Part II or Part I:
 - (a) there have been no ASF outbreak in domestic pigs during the past 12 months or,
 - (b) in case of total depopulation of all non-commercial farms with low biosecurity conditions, the period without any outbreaks can be reduced to 3 months or,
 - (c) in case of outbreak (in an area with no ASF outbreaks in domestic pigs for the past 12 months) – 3 months after the disinfection of infected holding (in accordance with Article 10.4 (a) of Directive 2002/60/EC) and provided that measures referred in Article 10.4 (b) (clinical and laboratory examinations) or in Article 10.5 (intensive sampling and testing program of Directive 2002/60/EC are implemented,
 - (d) in the event of limited outbreaks clustered in space and in time (during a period of 30 days from the first outbreak) of ASF in non-commercial pig holdings in a sufficiently large and previously free area – 3 months after the disinfection of last infected holding (in accordance with Article 10.4 (a) of Directive 2002/60/EC) and provided that measures referred in Article 10.4 (b) (clinical and laboratory examinations) or in Article 10.5 (intensive sampling and testing program of Directive 2002/60/EC have been implemented. In addition, an overall epidemiological situation of ASF of the country and justifications provided by relevant veterinary authority should be considered.

8.5 Training and outreach

Central FVS experts organize annual planned trainings and special meetings for OV and AVs in various fields of competence, e.g. animal disease surveillance programs, biosecurity rules, ASF controls, and on any new legislation. These trainings are conducted at least 20 times every year. The training program may vary and is based on changes in legislation, unexpected serious event, or changes in FVS procedures. Usually training program includes theoretical part, practical sessions (usually theoretical or sometimes practical), analysis of problem situations, or discussions on professional actions. FVS ensures that its entire staff performing official controls receive appropriate training enabling them to undertake their duties competently and to carry out official controls in a consistent manner, keep up-to-date in their area of competence, receive regular additional training as necessary [2, 7].

Regarding the awareness programs, FVS has close collaboration with animal breeding organizations, stakeholders, and farmers. FVS provides different types of awareness training to farmers, traders, transporters, etc. In addition, FVS organizes regional seminars/ meetings for veterinary practitioners and associations (industry), meetings with private veterinarians, staff of State Forest Service, hunters, and representatives of local municipalities on the ASF epidemiological situation and necessary eradication measures in infected and risk area. In addition, FVS conducts information campaigns through press, radio and television for the public about ASF and CSF situation and necessary eradication measures. The information include: recognizing ASF signs, the manner of spreading of the disease, the obligation for notifying the suspicions of occurrence of ASF, actions to follow when a dead pig or wild boar, and compensation for pigs slaughtered, killed or found dead as a result of depopulation [2].

FVS also prepared booklets, leaflets, video clips, poster, etc. to distribute to pig owners/keepers, hunters, farmers, and the public about ASF/CSF and other infectious diseases - Information through media, newspapers etc. Additionally, the Latvian Rural Advisory and Training Centre provides educational courses and training sessions for farmers, transporters, and other interested persons on surveillance of animal infectious diseases and other topics [2].

9 Import controls

9.1 Imports from third countries

Live animals, meat, meat products, and genetic materials are harmonized commodities under EC legislations, which means that the requirements for importation from third countries are standardized across all Member States. EC certification requirements for import of live animals and animal products from third countries are generally comprehensive with respect to OIE guidelines and must be signed by an OV of the country of origin. The specific certificate used depends on the commodity for export, the exporting country, the disease status in the exporting country, and, in the case of live animals, the purpose for which they are exported (breeding, production, or direct slaughter) [2, 7, 14].

Commission regulation (EU) No 206/2010 of 12 March 2010 lists third countries from which live animals and their fresh meat may be imported into the EU and for which there is a model veterinary certificate specifying the certification requirements. The OV of the third country must certify and confirms that the animal conditions and tests provided for in the relevant health template have been met. Figure 11 shows the list of EC legislations pertinent to model certificates and other EC legislations pertinent to the importation of live swine, genetics, fresh meat, and animal products [2, 7, 14].

In addition, animals dispatched from approved assembly centers or verified isolation premises to countries outside the EU are certified according to the requirements of the country in question. Assembly centers for trade to other EU Member States are approved according to [14]:

- Council Directive 64/432/EEC of 26 June 1964 on animal health problems affecting intra-Community trade in bovine animals and swine, and
- Council Directive of 28 January 1991 on animal health conditions governing intra-Community trade in ovine and caprine animals (91/68/EEC).

Figure 11: EC legislations governing imports of animal commodities

Commodity	EC legislation	Description
Live animals Genetics	Council Directive 91/496/EEC	Principles governing the organization of veterinary checks on animals entering the EU from third countries
	Council Directive 92/65/EEC	Requirements for trade in and imports into the EU of animals, semen, ova and embryos not subject to health requirements
	Council Directive 2004/68/EC	Rules for the importation into and transit through the EU of certain live ungulate animals
	Council Regulation (EC) 1/2005	Requirements for protection of animals during transport
	Commission Decision 2011/630/EU	Specifies certification requirements and lists third countries from which bovine semen is allowed
	Council Directive 88/407/EEC	Specifies requirements for approval by the EC of bovine semen collection centers
	Commission Decision 2006/168/EC	Specifies certification requirements for imports of bovine embryos and specifies list of allowed third countries
	Council Directive 90/429/EEC	Specifies requirements for intra-Union trade in and imports of porcine semen and approval of semen collection centers
	Commission Decision 2012/137/EU	Lists third countries allowed to export porcine semen to EU
	Commission Decision 2008/636/EC	List of third countries authorized for imports of porcine ova and embryos into the EU
Products	Council Directive 97/78/EC	Principles governing organization of veterinary checks on products entering the Community from third countries
	Commission Decision 2007/777/EC	Conditions and certification for imports of certain meat products and treated stomachs, bladders and intestines
	Commission Decision 2000/572/EC	Health conditions and certification for imports of minced meat and meat preparations
	Council Directive 2002/99/EC	Rules for production, processing, distribution and introduction of products of animal origin for human consumption
	Commission Decision 2003/779/EC	Requirements for importation of animal casings
	Commission Implementing Regulation 2016/759/EU	Requirements for gelatin, collagen and raw materials for production of gelatin and collagen
	Regulation (EC) No 882/2004	Official controls to ensure verification of compliance with feed and food law, animal health and animal welfare rules
	Regulation (EC) No 1069/2009	Specifies health rules as regards animal by-products and derived products not intended for human consumption

9.2 Control of intra-Community trade

9.2.1 General requirements

Trade in live animals and animal products within the EU is primarily governed by a series of Council Directives that were transposed into Latvian legislations. As an EU Member State, Latvia is free to engage in intra-Community trade with any other Member State as governed by the transposed Directives. All live animals and animal products, including semen and embryos, must be accompanied by the appropriate certificate as specified in EC legislations. The EC emphasizes traceability as a key component of animal

health control. Hence animals must be appropriately identified to ensure that when animals are presented for dispatch to another Member State; they can be subsequently accounted for on arrival at the place of destination [2, 7].

The animal health requirements for intra-Community trade in live pigs are laid down in Council Directive 64/432/EC which harmonizes the rules for trade in live pigs to ensure that the same requirements are applied among all Member States thereby ensuring the safe and free circulation of animals in the European Union territory. In addition, there are rules regarding the health status in relation to animal diseases (e.g. CSF, ASF, and SVD). Prior to intra-Union trade, an official veterinarian certifies the health certificate and supervises the loading and unloading of animals for welfare reasons. The shipment is entered into the Trade Control and Expert System (TRACES) and the server informs the point of destination as well as any border crossing points and an OV at the point of destination confirms its arrival [15]. Council Directive 90/425/EEC allows for spot checks to be carried out at the point of origin and the destination to ensure that consignments are in compliance with conditions in the health certificates [14].

Slaughterhouses, cutting plants, cold storage units, milk processing plants, and semen collection centers must be approved by the Member State in which they reside according to criteria equivalent to those for exporting establishments in third countries. The veterinary services of the pertinent Member State and the EC's Food and Veterinary Office conduct periodic audits to monitor compliance with approval criteria and certification requirements [2, 7, 14].

9.2.2 Requirements specific for ASF

Latvia as well as other EU Member States prohibit imports of live swine and fresh meat and swine products from third countries affected with ASF. Processed products may be imported if subjected to a treatment that ensures the destruction of the ASF virus. In general, intra-Community trade in live swine, swine genetics, fresh pork and pork products is prohibited from ASF-restricted areas listed in the Annex to Commission Implementing Decision 2014/709/EU (as last amended). However, certain derogations to this prohibition are allowed for shipping live swine, swine genetics, fresh pork and processed products from ASF-restricted areas in an affected Member State under certain conditions. The main derogations for intra-Community trade are [11]:

1. Member States may authorize dispatch of live pigs from a holding located in the areas listed in Part I of the Annex to other Member States provided that those live pigs comply with the following conditions:
 - a) animals have continuously resided on the holding for at least 30 days prior to date of dispatch or since birth and no live pigs were introduced into that holding from restricted areas for at least 30 days prior to date of dispatch;
 - b) animals come from a holding which implements bio-security requirements for ASF as established by the competent authority and ensures that at least the first two dead pigs over the age of 60 days in each production unit each week have been subjected to a test for ASF;
 - c) animals have been subjected to test for ASF with negative results within a period of 7 days prior to the date of the movement and clinically by an official veterinarian within the 24-hour period prior to the movement of the live pigs; or,
 - d) animals come from a holding subjected at least twice a year, with an interval of at least 4 months, to inspections by the competent veterinary authority, which:
 - (i) followed the guidelines and procedures for sampling and checking;

- (ii) included a clinical examination of the pigs in the holding in accordance with the checking and sampling procedures;
 - (iii) checked the effective application of the measures provided for in the second indent and in the fourth to seventh indents of Article 15(2)(b) of Directive 2002/60/EC.
2. Dispatch of pigs from holdings in a Part II area to a Part II or III area in another Member State may occur under the following requirements:
- a) pigs have been uninterruptedly resident on the holding for a period of at least 30 days prior to the date of the dispatch or since birth and no live pigs have been introduced into that holding from Part II, III and IV areas during a period of at least 30 days prior to the date of the dispatch;
 - b) Laboratory testing for the presence of ASF virus genetic material conducted – 7 days prior to the date of the dispatch with negative ASF results; OR,
 - c) Pigs come from a holding which has been inspected at least twice a year with an interval of at least 4 months between inspections by an OV including clinical examination, sampling, confirmation that the holdings implements biosecurity requirements, and first 2 dead pigs over 60 days old per week per production unit are tested for ASF
 - d) the Member State of the place of origin immediately informs the Commission and the other Member States of the animal health guarantees (however, that information from the Member State of origin shall not be required when the places of origin, transit and destination of the pigs are all listed areas in the Annex and are continuous);
 - e) the channeling procedure complies with the following requirements:
 - each vehicle used for the transport of live pigs have been individually registered and sealed by an OV after loading,
 - the transport takes place directly without stopping by a route authorized by a FVS official,
 - after unloading the vehicle and any other equipment which have been used in the transport of these pigs, are cleaned and disinfected,
 - f) if the consignment complies with the above conditions, the following wording must be added to the health certificate: “Pigs in compliance with Article 3 of Commission Implementing Decision 2014/709/EU”.
3. Movement from a holding located in Part III area to a Part II or III area in another Member State may occur under the following requirements:
- a) A slaughter permit has been issued by the DVO;
 - b) A clinical examination must be conducted by an OV within 24 hours prior to the movement who issues health certificate (valid for 48 hours) confirming that no pigs show ASF signs;
 - c) Fresh pork, raw meat preparations, mechanically separated meat, minced meat and meat product are marked with a round health mark and distribution is limited to Latvia only;
 - d) The pigs originate from a holding which meets all biosecurity requirements and all holdings in the 3-km radius area comply with these requirements;
 - e) The DVO of the holding of dispatch must inform the DVO of the holding of destination of the intention to send the pigs who must confirm arrival of the pigs; and,
 - f) Transport through areas outside of Part III areas must be carried out along predefined transport routes;
 - g) Trucks used for transporting the pigs must be cleaned and disinfected as soon as possible after unloading.

- h) the Member State of origin immediately informs the EC and other Member States of the animal health guarantees and the approval by the competent authorities for transit and destination; and,
 - i) if the consignment complies with the above conditions, the following wording must be added to the health certificate: "Pigs in compliance with Article 3a of Commission Implementing Decision 2014/709/EU".
4. A Member State may authorize the dispatch of fresh pig meat and pig meat preparations and pig meat products consisting of, or containing such pig meat from areas listed in Parts II, III or IV of the Annex, to other Member States provided that those pig meat preparations and pig meat products are derived from pigs which have been kept since birth in holdings located outside the areas listed in Parts II, III and IV of the Annex and the fresh pig meat, pig meat preparations and pig meat products are produced, stored and processed in approved establishments.
 5. Member States may authorize the dispatch of fresh pig meat and pig meat preparations and pig meat products consisting of, or containing such pig meat, to other Member States from areas listed in Part II of the Annex provided that those pig meat preparations and pig meat products are derived from pigs that:
 - a) have been resident for a period of at least 30 days or since birth on the holding and no live pigs have been introduced into that holding from the areas listed in Parts II, III and IV of the Annex during a period of at least 30 days prior to the date of the movement, and,
 - b) have been subjected to laboratory testing for ASF with negative results on samples taken in accordance with the sampling procedures within a period of 15 days prior to the date of the movement and a clinical examination for ASF has been carried out by an official veterinarian on the date of dispatch, or
 - c) the pigs come from a holding:
 - (1) that has been subjected at least twice a year, with an interval of at least 4 months, to inspections by the competent veterinary authority, which:
 - i. followed the guidelines and procedures laid down in Chapter IV of the Annex to Decision 2003/422/EC;
 - ii. included a clinical examination and sampling in which pigs over the age of 60 days have been subjected to the laboratory testing in accordance with the checking and sampling procedures; and,
 - iii. checked the effective application of the measures provided for in the second indent and in the fourth to seventh indents of Article 15(2)(b) of Directive 2002/60/EC.
 - (2) that implements biosecurity requirements for ASF as established by the competent authority.
 6. Member States may authorize the dispatch of derived products obtained from animal by-products from porcine animals from the areas listed in Parts II, III and IV of the Annex to other Member States and third countries provided that: a) the by-products have been subjected to a treatment which ensures that the derived product obtained from porcine animals poses no risks as regards African swine fever; and, (b) the consignments of derived products are accompanied by a commercial document issued as referred to in EU regulations.

9.3 Import markets

Latvia prohibits imports of animals or animal products from third countries affected with the diseases under review. Latvia imports animals and animal products susceptible for the diseases under review from other EU Member States [2, 7]. According to data published by the World's Trade Organization, International Trade Center in 2018 and data from FVS information provided to APHIS, Latvia imported live animals, fresh meat and meat products from [2, 7, 16]:

- Live bovines – mainly imports from Estonia, plus the Netherlands, Germany, Lithuania, and the Czech Republic.
- Live swine – top imports are from Lithuania, plus Denmark and few animals from Austria.
- Swine semen – there was 1 shipment from the U.S.
- Bovine meat, fresh, chilled or frozen – mainly from Lithuania, Estonia, Spain, Poland, Germany and the Netherlands.
- Swine meat, fresh, chilled, or frozen – Denmark, Estonia, Belgium, Lithuania, Poland, and Spain.
- Edible offal (large animals) and meat and offal salted, in brine, etc. – EU Member States.
- Guts, bladders and stomachs of animals, fresh whole and pieces – EU Member States.
- Milk and milk products – 7 consignments from Russia and 4 consignments from Ukraine.
- Processed animal feed – 58 consignments from the U.S., 43 consignments from Canada, 6 consignments from Russia, and 1 consignment each from Belarus, Russia, Israel, and Turkey.

9.4 Border inspection

As mentioned previously, the BCD is responsible for all border inspection activities. BIPs carry out controls on imports of animals, food of animal and plant origin and plants. At BCD central level, the Deputy Director of Veterinary Jurisdiction and senior expert is responsible for organizing and coordinating the official control activities at the points of entry and for implementing Commission Decisions applicable to imports. The BCD, both at central level and at the BIP, is accredited in accordance with ISO/IEC17020 standard and its Quality Management System is in accordance with the requirements of the management system Standard ISO 9001:2000 [2, 7].

As of 2019, Latvia had 9 BIPs that are approved for animal products. Two road BIPs that are approved for live animal imports; one BIP located on border with Belarus (Pāternieki) and the other on the border with Russia (Terehova); no live animals are imported from Belarus and Russia due to disease restrictions. BIPs for live animal, controls where approved by EC auditors in accordance with Council Directive No 91/496/EC of 15 July 1991 laying down the principles governing the organization of veterinary checks on animals entering the EC from third countries. All shipments of animals and/or animal products must be imported into the EU through EC-approved BIPs. A map of Latvia displaying the locations of EC-approved BIPs is shown in Figure 12 [2, 7].

Figure 12: EC-approved BIPs in Latvia

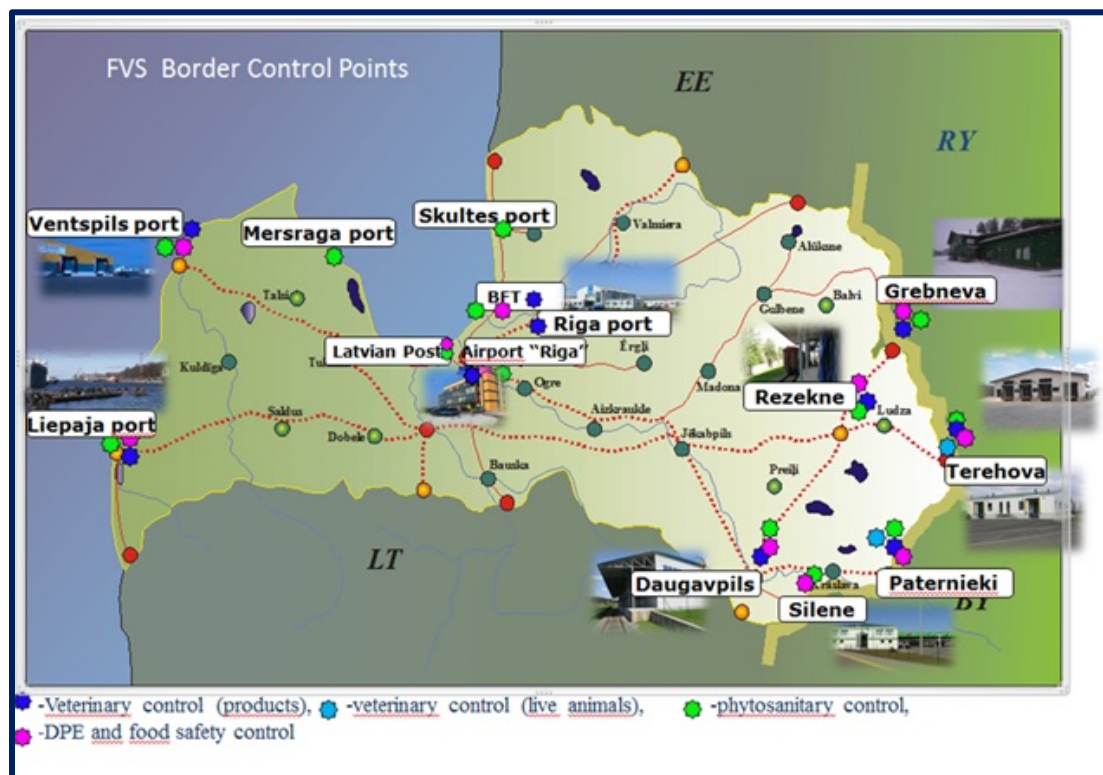


Figure 13: Data on BIPs staffing and schedules and consignments (as of September 2019)

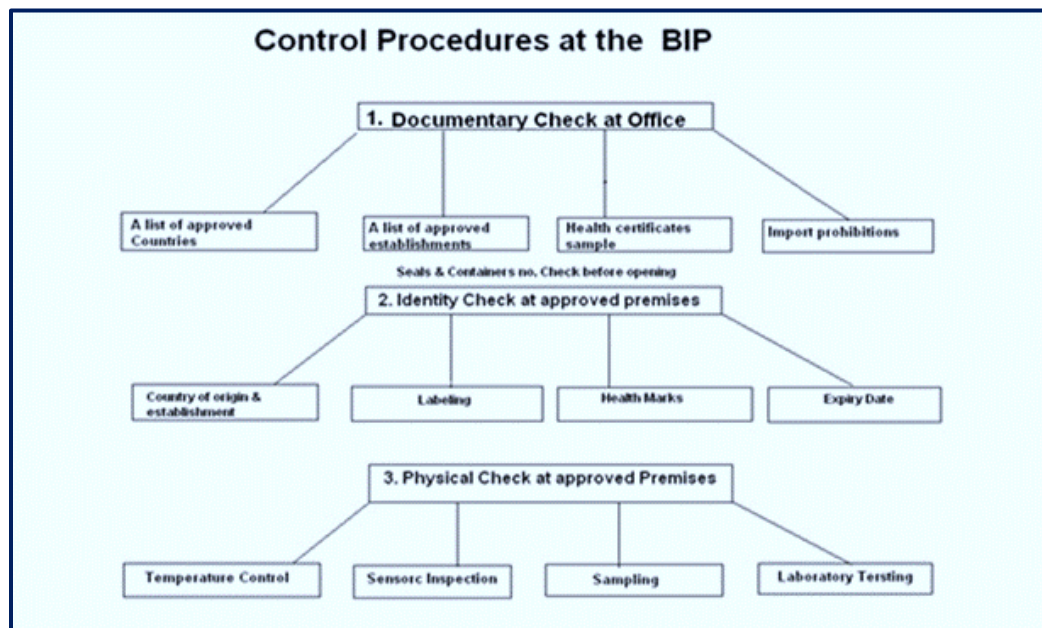
Name of entry point	Grebneva	Terehova	Paternieki	Rezekne	Daugavpils	Ventspils (Port)	Liepaja (Port)	Riga (Port)	Riga (Airport)
Days open	7	7	7	7	7	7	7	7	7
Hours of operation	24 hours	24 hours	24 hours	24 hours	24 hours	8:00 AM 8:00 PM	9:00 AM 9:00 PM	8:00 AM 8:00 PM	24 hours
Veterinarians	5	6	6	6	5	2	2	8	5
Eligible commodities	Milk products	Milk products	Processed animal feed					Processed animal feed	Milk products, semen
No. consignments	1	1	4	0	0	0	0	18	2
No. refused	1	0	2**	0	0	0	0	0	0

The EU has established a common legislative act Commission Implementing Decision No 2013/426/EU of 5 August 2013 on measures to prevent the introduction into the Union of the ASF virus from certain third countries or parts of the territory of third countries in which the presence of that disease is confirmed.

The BCD has an established procedures for the inspection and control of animals and animal products at BIPs. A flow chart of the BCD control procedures for imported animals and animal products is shown in Figure 13. The Veterinary Border Control Manual lists all the checking procedures and duties of border veterinarians. All inspections and laboratory testing protocols are conducted in accordance with Commission Decision 2007/275/EC of 17 April 2007 concerning lists of animals and products to be subject to controls at BIPs under Council Directives 91/496/EEC and 97/78. The official controls include at least a systematic documentary check, identity check and, as appropriate, a physical check. In general, live animals and products undergo four stages of controls at the BIP [2, 7]:

1. Prior to physical arrival of the consignment on Community territory the person responsible for the load must at least one working day prior to entry, submit by fax or email all veterinary documents including animal health certificates and the common veterinary entry document (CVED) required by EC legislation to the BIP.
2. Upon arrival, the BIP veterinarian checks all documents accompanying the consignment to confirm that the health certificate is correct according to EC requirements and that it has been signed by an official veterinarian of the exporting country;
3. An identity check or visual confirmation of correct ear tags, chips, tattoos, or codes for live animals and visual inspection of the products consignment to ensure that the veterinary certificates match with the consignment; and,
4. A physical check with a percentage of the shipment singled out for more thorough examination.

Figure 13: BCD control procedures for animal and animal products



The BCD has an annual monitoring plan for sampling of imported live animals and animal products based on the risk associated with certain products, establishments, and countries of origin. The sampling plan consists of the following:

- Systematic sampling (100 %): on specific risk consignments (based on EC legislation, safeguard decisions, Rapid Alert System for Food and Feed (RASSF), earlier results), suspected consignments, and consignments imported for the first time.
- Random sampling on all other import consignments: on a minimum of 3 % of live animal consignments of live based on a specific risk analysis, 1-10 % of consignments based on risk, or based on an annual sampling plan

If a shipment of animal origin products is presented at a BIP that is not approved to handle such products, the shipment will be rejected in accordance with Commission Decision No. 2009/821/EC of 28 September 2009 drawing up a list of approved border inspection posts, laying down certain rules on the inspections carried out by Commission veterinary experts and laying down the veterinary units in TRACES. Exit inspection is mainly carried out for animal welfare purposes. Trucks transporting live animals are generally not sealed due to 24-hour requirement for offloading (animal welfare legislation). Officials at the BIP receive information on veterinary certificates, journey/route/itineraries, eartags, etc. through TRACES [2, 7].

9.5 Transit controls

Transit of products between third countries is allowed under EC legislations, if there are no import restrictions on the source country. The conveyances are sealed at the point of origin in the third country, although officials at the point of departure from that country can break and replace the seal for inspection purposes. A customs officer records the seal number and breaks the seal upon arrival at the BIP point of entry. The products in transit undergo the same checks as imported consignments but no further unloading or alteration of the cargo is allowed while in Latvia. A veterinary inspection seal and customs seal are applied at the entry BIP for transit, a route plan is approved, and a specific exit point is designated. The BIP at the point of exit is notified of the transit shipment, records the exit, and sends confirmation back to the BIP at the point of entry when the vehicle leaves the country [2, 7].

9.6 Passenger traffic

Imports of animal products from third countries by private individuals in passenger luggage are governed by the Law and Commission Regulation (EC) No. 206/2009 on the introduction into the Community of personal consignments of products of animal origin. Customs is competent authority for inspecting passenger luggage and at border crossing points where customs control is not provided, the State Border Guard is responsible for checking passenger luggage. There is an interagency agreement between FVS and Customs authority regarding luggage control, control of introduction of the domestic (pet) animals, and procedures on co-operation and circulation of information [2].

Imports of pork and pork products for personal consumption is not permitted in accordance with EU regulations. All passenger luggage entering Latvia from third countries is screened at any of the BIP, sea ports, and airports by Customs or border patrol guards using non-intrusive methodology, such as x-ray equipment and/or detector dogs; however, manual inspections can be carried out if necessary. Passengers traveling within the EU are not subject to such inspections [14].

9.7 International waste

Waste generated on board of vessels and remains of consignments are handled in accordance with Regulation (EC) No 1069/2009 of the European Parliament and the Council of 21 October 2009, the

collection and transport of international waste at Latvian airports and seaports to disposal sites is carried out by registered establishments whose activities are supervised and controlled by FVS. Each shipment of waste are identified and registered. During transportation, shipments are accompanied by a commercial document in the form laid down in the Regulation. Activities at landfill sites, including proper disposal of waste, are under the control of the State Environmental Service, and are carried out in accordance with the waste legislation of that service [2].

Controls on disposal of international catering waste are carried out by FIs at the territorial level. The frequency of checks is based on risk principles and the minimum frequency of checks must be specified in the inspection plan. For those type establishments, the frequency is not less than once per year. Controls are carried out in accordance with a standard operation procedure consisting of a check list, references to legislative provisions, and guidelines for inspectors. A written record or digital version is drawn up for each control and results are available in the FVS database [2].

Each port in Latvia is subject to the waste disposal management regulations and must be approved by the Ministry of the Environment. The waste disposal management plan defines procedures for disposal of all wastes including kitchen and catering waste, and waste of animal origin. Food waste is classified as Category 1 and must be carefully packed before unloading. The waste is collected directly from the ship by pre-approved specialized companies with their own transport and sent for disposal by incineration. Food waste can only be unloaded from a vessel only after the BVI has been informed. Food waste from aircrafts coming from third countries is not left in Latvia [2].

10 Export controls

Latvia has the legal authority and the veterinary infrastructure to adequately conduct the export certification process for animals and animal products to third countries. The FVS provides regulatory oversight of holdings, assembly centers, and establishments certified to export animals and products to third countries, via FIs at the TSU and OV's at the establishment. FVS ability to ensure that exported animals and animal products comply with importing country requirements centers on its systems for inspections, slaughter controls, identification and traceability, movement controls, and export certification. Live animals are mainly transported to other EU member states or to the third countries by roads [2].

In accordance with Commission Decision 93/444/EC, the export of live animals, animal products and by-products to third countries requires an export health certificate. The shipment is accompanied by a certificate conforming to the requirements of the third country of destination with data verified by the FVS. Export certificates are issued in accordance with the general principles of certification laid down in Council Directive 96/93/EC and those of Annex IV to Council Directive 2002/99/EC and with the FVS the certification process detailed in procedure KR.07.P.080 "Methodological guidelines for the issue and registration of veterinary (health) certificates" [2, 7].

In Latvia, export health certificates are issued by OV's. According the FVS internal quality system procedures, the OV issuing the export health certificate must have knowledge of the provisions contained in relevant legal acts, be familiar with the rules of conducting veterinary checks and the manner of issuing health certificates. In that regard, the FVS conducts a structured training program for export certification; all OV's authorized to issue export health certificates must undergo this training and pass a required test before they are officially assigned to sign the certificates. The training covers principles of certification,

relevant EU legislation, TRACES certification process, and practical sessions on how to fill export health certificates. The FVS has 106 OV's who can sign export health certificates [2, 7].

FVS utilizes a structured system for export inspection controls to ensure that all shipments of live animals and animal products comply with requirements of the importing country as well as with EU requirements. The FVS certifies the health status of animals, meat, and meat products based on information contained in the ADNS system; regular inspections at establishments performed by OV's; results of any required laboratory tests; information contained in electronic systems (e.g. ADC); assessment of the quality and safety assurance procedures at the establishment; and, ensuring compliance with the specific requirements of third countries. All documents related to a certificate must be saved in the certification cases file kept at the TSU and/or recorded on the FVS database [2].

For live animals, shipments are dispatched directly from the holding of origin or from approved assembly centers after release from the export quarantine period. Diagnostic testing or special procedures required by the third country are done at the holding or during the export quarantine period in the assembly centers. At loading, the OV is on site to control the loading of the animals into the livestock transport vehicles. The OV verifies the health status of the holding, matches the individual animals to the certificate, and performs a clinical examination. Transport vehicles and transportation requirements (e.g., truck seals) for live animals are also verified by the official veterinarian and the details are recorded in the export certificate. Upon exiting the EU via the BIP, only an animal welfare check is required in accordance to Council Regulation (EC) No 1/2005 [7].

There are 78 slaughterhouses in Latvia, of which 34 slaughterhouses, 18 meat cutting/preparation plants, and 13 meat processing plants that are approved by FVS for dispatching fresh pork and products under derogations listed in implementation decision 2014/709/EU. All establishments producing food of animal origin, including pork meat and pork meat products, must have a veterinary ID number assigned to it at the time of registration/approval and must implement the Hazard Analysis and Critical Control Point (HACCP) System and procedures in accordance with EC regulation No. 852/2004 [2]. In addition, they must implement specific official controls on products of animal origin intended for human consumption in accordance with EC regulation No. 853/2004 and 854/2004. All slaughter procedures and inspections are carried out under supervision of OV's stationed at the plants. The tasks of the OV mainly cover: ante- and post-mortem inspection; animal identification; food chain information, hygiene of premises, equipment and personnel; animal welfare at a slaughter and during transport to the slaughterhouse, animal by product's handling and samples for laboratory testing, if necessary [2, 7].

For products, export health certificates are issued by OV's at the establishment under the oversight of the SFI or SVI based on information contained in other certificates and/or documents issued by another OV in Latvia and/or another Member State. No later than 24 hours before the movement of animals from a farm to a slaughter establishment, the owner/manager of the establishment must electronically submit information on the expected shipment to the OV including the registration number of the herd and the holding from which the animals are being moved and the owner or keeper of the animal, given name, surname or company name; and the total number of animals along with a list of individual identification number. The OV at the establishment must check the eligibility of food chain information (EC Regulation No. 853/2004), the data in the ADC database (status of the holding, whether there are any restrictions to animal movement applied) and performs the identification and compliance check of the animals.

Procedures for issuing certificates should ensure the accuracy of the data certified in the certificates and prevent unfair, and false certification and the OV should not certify data of which he/she has no personal knowledge or cannot check, sign unfilled or incompletely filled health certificates, or certificates for products that were produced in companies not under his/her direct control. The EU and Latvian legislations establish the duties and rights of FVS and food business operators. The Administrative Code of Latvia provides FVS the authority to apply a range of sanctions including warnings, penalties and confiscation, suspending or prohibiting export of products to third countries, or suspending or canceling the export approval of food business operators [2, 7].

FVS has the ability to trace and follow a food, feed, food-producing animal or substance intended to be or expected to be incorporated into a food or feed throughout all stages of production, processing, and distribution. All food or feed which is placed on the market or is likely to be placed on the market in the EC must be adequately labelled or identified to facilitate its traceability, through relevant documentation or information in accordance with Regulation (EC) No. 178/2002 of the European Parliament and of the Council for food of animal origin and other relevant requirements [2, 19]. The FVS requires establishments to have a traceability system enabling them to identify their immediate supplier(s) of animals and their immediate customer(s) of their raw materials, semi-finished products and products used for production. A "supplier-animal" or "supplier-raw material" link needs to be established (i.e. a possibility to determine, which animals or raw materials come from which suppliers), as well as a link between "customer-product" (i.e. a possibility to determine, which products were delivered to which recipients). The establishment must make the information available to FVS on demand [2, 7]. The traceability system must include the following information:

- Information on animals, raw materials, semi-finished products, products and additional allowed substances incorporated into a particular product as a part of a food product in the course of its production, preparation or processing, materials and products intended to come in contact with food;
- An accurate description of the food and the volume or quantity of the product;
- The name and address of the food business operator or the consignor (if different) from which the product has been dispatched; and,
- The name and address of the food business operator or consignee (if different) to whom the food is dispatched; and,
- A reference number or code identifying the lot, batch, or consignment, and the date of dispatch.

11 Review conclusions

APHIS concludes that FVS has sufficient legal authority to carry out animal health programs including official controls and field activities for all the diseases under review. Review of information provided by Latvia demonstrated adequate technical infrastructure of official and authorized veterinarians, support personnel, and financial resources for carrying out disease control and eradication programs.

11.1 Likelihood of presence of the hazards

Based on documentation provided by Latvia, APHIS did not find evidence to suggest the presence of FMD, CSF, or SVD in Latvia. There have been no detections of FMD since 1987; CSF since 2014 in domestic swine and 2015 in wild boar; and SVD has never been detected in Latvia, which is supported by ongoing

passive and/or active surveillance. In addition, there is no evidence available to APHIS to suggest that these diseases may exist in wildlife populations in Latvia, which is supported indirectly by surveillance for these diseases in domestic populations with the highest risk of contact with wild animals. Vaccination against all four diseases is prohibited or has never been used. Therefore, APHIS concludes that the likelihood of presence of FMD, CSF, or SVD in Latvia is negligible. By contrast, APHIS considers ASF to be present in both domestic swine and wild boar populations in Latvia since 2014.

11.2 Likelihood of introduction of the hazards

APHIS considers that there are no natural barriers sufficient for restricting animal movement and human traffic except for the Baltic Sea in the west. Roaming of susceptible animals, in particular wild boar, into Latvia through international borders with affected regions could occur with little or no physical barriers, particularly from neighboring regions where the status of the diseases under review are unknown or remain uncontrolled. In that regard, APHIS considers Russia and Belarus to be affected with the diseases under review; therefore, APHIS cannot exclude the possibility that these diseases exist in the two neighboring regions. However, as mentioned in section 2 of this report, FMD and SVD have never been reported in wild species in Latvia despite ongoing surveillance. Additionally, APHIS found that there has been no evidence of FMD or SVD introduction via wildlife in Latvia from neighboring regions. Considering the epidemiological status and history of FMD and SVD occurrence in European wild boar populations, combined with rigorous biosecurity requirements on swine farms and hunting clubs, APHIS concludes that the likelihood of introducing FMD or SVD virus into Latvia via susceptible wild animals is negligible.

By contrast, APHIS considers the likelihood of CSF introduction into Latvia via migration of wild boar from affected neighboring regions to be higher, given the history of the disease in wild boar populations. Likewise, APHIS considers the likelihood of ASF introduction via roaming wild boar from affected neighboring regions to be high and an issue of concern for exposure of domestic animals particularly pigs raised in small non-commercial or temporary/seasonal swine farms. However, Latvia imposes very high and strict biosecurity requirements and movement controls on all swine farms and hunting which led to a significant reduction in the number of small farms raising pigs for their own consumption. In addition, the density of the wild boar populations appear to be declining likely due to ASF infections and hunting. These strategies mitigate the likelihood of exposure of domestic swine to infected wild boar to a low level.

Latvia imposes a stringent system for legal importation of animals and animal products that consists of certification requirements, transit controls, transport requirements, intra-Community requirements, and border inspection controls to mitigate against introduction of the diseases under review. This system is harmonized with EC regulations which include multiple levels of inspections and verification of import and transit requirements. In addition, there appear to be sufficient controls on passenger traffic coming from third countries, as well as handling of international waste (flights from third countries, ships, cruises, etc.). However, there are no controls on passengers traveling within the EU, which means that passengers that might be carrying products from ASF-restricted areas can move freely within the EU. Moreover, feeding of waste of animal origin originating from international sources, slaughterhouses, restaurants, hospitals, or other establishments, to pigs has been prohibited since 2008.

Therefore, APHIS concludes that Latvia has demonstrated that sufficient controls exist to mitigate the likelihood of introduction of the diseases under review via legal importation of susceptible animals and animal products from affected regions to a negligible level.

11.3 Detection, response, and effective control

APHIS concludes that Latvia has a comprehensive surveillance system capable of detecting all of the hazards under review. Active and passive surveillance systems for FMD, CSF, ASF, and SVD are in place and are appropriate given Latvia's disease history, geographical location, and import practices. The FVS takes into consideration important factors such as higher risk areas, production type, vaccination status, and presence of and interaction with susceptible wild animals when designing its surveillance programs. Adequate laboratory procedures and capabilities are available to support surveillance programs, and testing is conducted in accordance with the OIE's Diagnostic Manual and latest scientific methods. By law, all of the hazards under review are reportable and FVS passive surveillance programs depend on this mandatory reporting requirement. FVS enhances its passive surveillance through conduct of various outreach/education materials and training sessions to producers, veterinarians, and hunters using multiple types of delivery and mass media.

APHIS considers Latvia to have sufficient controls in place to rapidly detect the hazards under review and manage its animal disease investigation, response, and control programs effectively using comprehensive emergency response plans and available resources. Adequate protocols and authority for implementing controls of potential occurrences of the hazards are in place and all animal disease events are investigated by trained official veterinarians and official staff. FVS has demonstrated that it can promptly notify the EC, the U.S. and/or the OIE of hazard events and introduce sufficient controls to trace and prevent product shipments from being exported.

Therefore, APHIS concludes that if FMD, CSF, and SVD were to be introduced into Latvia or if ASF were to be reintroduced into domestic swine and other free areas of the country, the likelihood the diseases will remain undetected and spread all over the country is negligible. However, APHIS also concludes that ASF will continue to circulate in Latvia's wild boar populations for some time; as a result, it is expected that more ASF detections in wild boar will occur with occasional spill over into the domestic swine populations.

11.4 Export certification

Latvia applies adequate movement controls on animals and animal products, implements appropriate animal identification and traceability systems, and implements stringent systems of verification and inspections for certifying exports of animals and their products. Export verification and certification systems for the diseases under review ensure that exported animals and animal products, beginning at the farm and extending through all components of production meet importing country requirements. In addition, there are no Latvian establishments that are approved for export to the U.S. Therefore, APHIS concludes that the likelihood that ineligible animals and animal products be certified for export to the U.S. is negligible.

The EU allows certain derogations by which live swine, swine meat and meat products can move from ASF-restricted areas to other Member States or third countries. Latvia considers Part I areas to be free from ASF (buffer) and thus, allows the movement of live swine under certain conditions from farms located in Part I to other Member States and third countries. In addition, these ASF derogations allow movement of fresh swine meat and meat products from Parts II, III, and IV provided they are produced from pigs that originate from farms in unrestricted areas; however, such movements are allowed only under very stringent conditions. On the other hand, APHIS considers all Parts (I-IV) to be restricted and prohibits pork or pork products from such regions unless it complies with processing requirements in

Section §94.8 of the CFR. Similar to the situation with CSF restrictions, there is a potential that fresh pork from ASF-restricted areas end up in other unrestricted Member States and later shipped to the U.S. However, the EC's and Latvian regulations require that all fresh swine meat and meat products must be sourced and processed in accordance with U.S. import requirements and is prepared and processed in approved establishments. Therefore, APHIS concludes that the likelihood that fresh meat and meat products sourced from ASF-restricted areas is exported to the U.S. is negligible.

With regard to CSF, the EU lifts its restrictions on regions or zones affected with CSF in domestic swine or wild boar 30 days after cleaning and disinfection of the last affected holding. However, APHIS import regulations in Section §94.31(1)(a)(ii) of the CFR specify that a designation of a restricted zone must remain in place for a minimum period of 6 months. The difference in the time frames in APHIS' and EC's regulations coupled with free trade in pork and pork products among EU Member States might reduce the ability of EU officials to certify shipments in accordance with APHIS import requirements. However, EC regulations require that certifying officials must review all documentation and confirm the origin and sourcing of animals and products prior to issuing export certificates.

12 Recommendations

The information provided by Latvia support continuation of the current APHIS-granted animal health statuses for FMD, CSF, ASF, and SVD and related import requirements. Recognition of these statuses will be maintained until the next APHIS review or until a change in Latvia's animal health status is reported.

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Appendix 1:

Disease under review: Classical swine fever (CSF)

Animal Health Activity	Description	Authorizing Legal Act(s) or Regulation(s)	Date(s) Authorizing Legal Act(s) or Regulation(s) Last Amended
Disease notification	The Regulations prescribe the reporting and registration of the state-controlled animal infectious diseases and the procedures by which the owner or holder of the animals, the legal entity performing laboratory examinations, if the person is involved in food, animal, environmental and in laboratory control of animal feed (accredited laboratory), authorized veterinarian at slaughterhouse, practicing veterinarian or any other person having relevant information, shall report infectious diseases to the Food and Veterinary Service.	Regulations of Cabinet of Ministers 21.02.2012. No. 127 „Regulations on public supervision existing animal infection diseases, which must be notified and included in register; procedure, how to provide information about them to Food and Veterinary Service”	Last amendments: Regulations of Cabinet of Ministers 07.09.2018. No. 488 “Amendments on Regulations of Cabinet of Ministers 21.02.2012. No. 127 „Regulations on public supervision existing animal infection diseases, which must be notified and included in register; procedure, how to provide information about them to Food and Veterinary Service””
On-farm inspections		In accordance with Commission Implementing decision (2013/764/EU) of 13 December 2013 concerning animal health control measures relating to classical swine fever in certain Member States and Regulation of Cabinet of Ministers 30.11.2004. No. 991 “Procedures for Liquidation and Prevention of Danger of Classical swine fever”.	
Import, export, and internal movement controls	In accordance with Commission Implementing decision 2013/764/EU there is prohibition to move out from the restricted zone to other Member States or third countries the live	Commission Implementing decision (2013/764/EU) of 13 December 2013 concerning animal health control measures relating to classical swine fever in	

	domestic pigs, consignments of porcine semen, ova and embryos of swine origin, fresh pig meat and certain meat preparations and meat products of swine origin.	certain Member States and Regulations of Cabinet of Ministers 30.11.2004. No. 991 "Procedures for Liquidation and Prevention of Danger of Classical swine fever".	
Quarantine of animals or farms	In routine movements of animals there are no specific requirements for quarantine of animals before they are sent to other holdings. If there is an outbreak of the disease (for example: CSF), the restricted zones must be established around outbreak (3 kilometers protection zone and 10 kilometers surveillance zone). The movements of animals to and from these zones are under specific restrictions and provisions.	The restricted zones must be established in accordance with Regulations of Cabinet of Ministers 30.11.2004. No. 991 "Procedures for Liquidation and Prevention of Danger of Classical swine fever" point 36.	
Vaccination for the disease(s) under review	<p>Vaccinations on CSF of domestic pigs are prohibited.</p> <p>The vaccinations on CSF of wild boars are completed in 2016.</p>	<p>Regulations of Cabinet of Ministers 30.11.2004. No. 991 "Procedures for Liquidation and Prevention of Danger of Classical swine fever" point 9.</p> <p>Commission Implementing decision (2013/90/EU) of 18 February 2013 approving the plan for the eradication of classical swine fever in feral pigs and the emergency vaccination of such pigs in certain areas of Latvia.</p>	
Surveillance for the disease(s) under review		Commission Implementing decision (2013/764/EU) of 13 December 2013 concerning animal health control measures relating to classical swine fever in certain Member States and Regulations of Cabinet of Ministers 30.11.2004. No. 991 "Procedures for Liquidation and Prevention of Danger of	

		Classical swine fever”.	
Control and eradication of the disease(s) under review		Regulations of Cabinet of Ministers 30.11.2004. No. 991 “Procedures for Liquidation and Prevention of Danger of Classical swine fever”	Last amendments: Regulations of Cabinet of Ministers 21.02.2017. No. 97 “Amendments on “Regulation of cabinet of ministers 30.11.2004. No. 991 “Procedures for Liquidation and Prevention of Danger of Classical swine fever””
Animal identification and farm registration		<p>Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products and repealing Council Regulation (EC) No 820/97;</p> <p>Council Regulation (EC) No 21/2004 of 17 December 2003 establishing a system for the identification and registration of ovine and caprine animals and amending Regulation (EC) No 1782/2003 and Directives 92/102/EEC and 64/432/EEC.</p> <p>Regulations of Cabinet of Ministers 15.07.2014. No. 393 “Procedures for registration of farming animals, the herds and holdings thereof and the procedures for identification of farming animals” are in force till 1 of March 2019. In accordance with the new Animal Breeding Law the new regulations on registration of farming animals the herds and holdings thereof and the procedures for identification of farming animals shall be</p>	

		implemented after its adoption in the Cabinet of Ministers.	
Emergency response activities	If an outbreak of CSF or an individual infection is detected, the State Chief Food and Veterinary Officer shall inform the Ministry of Agriculture thereof. If the outbreak of CSF is close to the national border and the quarantine area covers the territory of two or more countries, the Food and Veterinary Service shall cooperate with the competent authority for surveillance of communicable diseases in the neighboring country and agree on the measures to be taken.	Regulations of Cabinet of Ministers 30.11.2004. No. 991 "Procedures for Liquidation and Prevention of Danger of Classical swine fever"	
Seizure, depopulation, and compensation		<p>1) Regulations of Cabinet of Ministers 30.11.2004. No. 991 "Procedures for Liquidation and Prevention of Danger of Classical swine fever"</p> <p>2) Regulations of Cabinet of Ministers 15.03.2005. No.177 "Procedures how animal owner receives compensation for the losses which incurred by the infectious disease outbreak or an epizootics outbreak when diseases are under the state supervision"</p>	<p>Last amendments: Regulations of Cabinet of Ministers 16.08.2017. No. 482 "Amendments on Regulations of Cabinet of Ministers 15.03.2005. No.177 "Procedures how animal owner receives compensation for the losses which incurred by the infectious disease outbreak or an epizootics outbreak when diseases are under the state supervision""</p>

Disease under review: Foot and mouth disease (FMD)

Animal Health Activity	Description	Authorizing Legal Act(s) or Regulation(s)	Date(s) Authorizing Legal Act(s) or Regulation(s) Last Amended
Disease notification	The Regulations prescribe the reporting and registration of the state-controlled animal infectious diseases and the procedures by which the owner or holder of the animals, the legal entity performing laboratory examinations, if the person is involved in food, animal, environmental and in laboratory control of animal feed (accredited laboratory), authorized veterinarian at slaughterhouse, practicing veterinarian or any other person having relevant information, shall report infectious diseases to the Food and Veterinary Service.	Regulations of Cabinet of Ministers 21.02.2012. No. 127 „Regulations on public supervision existing animal infection diseases, which must be notified and included in register; procedure, how to provide information about them to Food and Veterinary Service”	Last amendments: Regulations of Cabinet of Ministers 07.09.2018. No. 488 “Amendments on Regulations of Cabinet of Ministers 21.02.2012. No. 127 „Regulations on public supervision existing animal infection diseases, which must be notified and included in register; procedure, how to provide information about them to Food and Veterinary Service””
On-farm inspections	The last outbreak of FMD in Latvia was detected in 1987.	No specific provisions for holding inspections due to find out or control of FMD.	
Import, export, and internal movement controls	The last outbreak of FMD in Latvia was detected in 1987.	No specific provisions for holding inspections due to find out or control of FMD.	
Quarantine of animals or farms	In routine movements of animals there are no specific requirements for quarantine of animals before they are sent to other holdings. If there is an outbreak of the diseases (for example: FMD), the restricted zones must be established around outbreak (3 kilometers protection zone and 10 kilometers surveillance zone). The movements of animals to are from these zones are under specific restrictions and provisions.	The restricted zones must be established in accordance with Regulations of Cabinet of Ministers 5.08.2005. No. 582 “Procedures for Liquidation and Prevention of Danger of Foot-and-mouth disease” point 69.	
Vaccination for the disease(s) under review	Vaccination on FMD of domestic animals of susceptible species is prohibited.	Regulations of Cabinet of Ministers 5.08.2005. No. 582 “Procedures for Liquidation and Prevention of Danger of Foot-and-mouth disease” point 8.1.	
Surveillance for the	The last outbreak of FMD in	No specific provisions for	

disease(s) under review	Latvia was detected in 1987.	FMD surveillance in domestic and wild animals.	
Control and eradication of the disease(s) under review		Regulations of Cabinet of Ministers 5.08.2005. No. 582 "Procedures for Liquidation and Prevention of Danger of Foot-and-mouth disease"	Last amendments: Regulations of Cabinet of Ministers 24.04.2018. "Amendments on "Regulations of Cabinet of Ministers 5.08.2005. No. 582 "Procedures for Liquidation and Prevention of Danger of Foot-and-mouth disease""
Animal identification and farm registration		<p>Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products and repealing Council Regulation (EC) No 820/97;</p> <p>Council Regulation (EC) No 21/2004 of 17 December 2003 establishing a system for the identification and registration of ovine and caprine animals and amending Regulation (EC) No 1782/2003 and Directives 92/102/EEC and 64/432/EEC.</p> <p>Regulations of Cabinet of Ministers 15.07.2014. No. 393 "Procedures for registration of farming animals, the herds and holdings thereof and the procedures for identification of farming animals" are in force till 1 of March 2019. In accordance with the new Animal Breeding Law the new regulation on registration of farming animals the herds and holdings thereof and the procedures for identification of farming animals shall be implemented after its adoption in the cabinet of ministers.</p>	
Emergency response	If an outbreak of FMD or an	Regulations of Cabinet of	

activities	individual infection is detected, the State Chief Food and Veterinary Officer shall inform the Ministry of Agriculture thereof. If the outbreak of FMD is close to the national border and the quarantine area covers the territory of two or more countries, the Food and Veterinary Service shall cooperate with the competent authority for surveillance of communicable diseases in the neighboring country and agree on the measures to be taken.	Ministers 5.08.2005. No. 582 “Procedures for Liquidation and Prevention of Danger of Foot-and-mouth disease”	
Seizure, depopulation, and compensation		<p>1) Regulations of Cabinet of Ministers 5.08.2005. No. 582 “Procedures for Liquidation and Prevention of Danger of Foot-and-mouth disease”;</p> <p>2) Regulations of Cabinet of Ministers 15.03.2005. No.177 “Procedures how animal owner receives compensation for the losses which incurred by the infectious disease outbreak or an epizootics outbreak when diseases are under the state supervision”</p>	<p>Last amendments: Regulation of cabinet of ministers 16.08.2017. No. 482 “Amendments on Regulation of cabinet of ministers 15.03.2005. No.177 “Procedures how animal owner receives compensation for the losses which incurred by the infectious disease outbreak or an epizootics outbreak when diseases are under the state supervision””</p>

Disease under review: Swine vesicular disease (SVD)

Animal Health Activity	Description	Authorizing Legal Act(s) or Regulation(s)	Date(s) Authorizing Legal Act(s) or Regulation(s) Last Amended
Disease notification	The Regulations prescribe the reporting and registration of the state-controlled animal infectious diseases and the procedures by which the owner or holder of the animals, the legal entity performing laboratory examinations, if the person is involved in food, animal, environmental and in laboratory control of animal feed (accredited laboratory), authorized veterinarian at slaughterhouse, practicing veterinarian or any other person having relevant information, shall report infectious diseases to the Food and Veterinary Service.	Regulations of Cabinet of Ministers 21.02.2012. No. 127 „Regulations on public supervision existing animal infection diseases, which must be notified and included in register; procedure, how to provide information about them to Food and Veterinary Service”	Last amendments: Regulations of Cabinet of Ministers 07.09.2018. No. 488 “Amendments on Regulations of Cabinet of Ministers 21.02.2012. No. 127 „Regulations on public supervision existing animal infection diseases, which must be notified and included in register; procedure, how to provide information about them to Food and Veterinary Service””
On-farm inspections	In Latvia the SVD has never been detected.	No specific provisions for holding inspections due to find out or control of SVD.	
Import, export, and internal movement controls	In Latvia the SVD has never been detected.	No specific provisions for holding inspections due to find out or control of SVD.	
Quarantine of animals or farms	In routine movements of animals there are no specific requirements for quarantine of animals before they are sent to other holdings. If there is an outbreak of the diseases (for example: SVD), the restricted zones must be established around outbreak (3 kilometers protection zone and 10 kilometers surveillance zone). The movements of animals to are from these zones are under specific restrictions and provisions.	The restricted zones must be established in accordance with Regulations of Cabinet of Ministers 17.12.2007. No. 862 “Procedures of Swine vesicular disease outbreak eradication and threat prevention” point 29.	
Vaccination for the disease(s) under review	Vaccinations on SVD of domestic animals of susceptible species are prohibited.	Regulations of Cabinet of Ministers 17.12.2007. No. 862 “Procedures of Swine vesicular disease outbreak eradication and threat prevention” point 53.	
Surveillance for the disease(s) under	In Latvia the SVD has never been detected.	No specific provisions for SVD surveillance in	

review		domestic and wild animals.	
Control and eradication of the disease(s) under review		Regulations of Cabinet of Ministers 17.12.2007. No. 862 “Procedures of Swine vesicular disease outbreak eradication and threat prevention”	Last amendments: Regulations of Cabinet of Ministers 20.08.2013. No. 599 “Amendments on Regulation of cabinet of ministers 17.12.2007. No. 862 “Procedures of Swine vesicular disease outbreak eradication and threat prevention””
Animal identification and farm registration		<p>Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products and repealing Council Regulation (EC) No 820/97;</p> <p>Council Regulation (EC) No 21/2004 of 17 December 2003 establishing a system for the identification and registration of ovine and caprine animals and amending Regulation (EC) No 1782/2003 and Directives 92/102/EEC and 64/432/EEC.</p> <p>Regulations of Cabinet of Ministers 15.07.2014. No. 393 “Procedures for registration of farming animals, the herds and holdings thereof and the procedures for identification of farming animals” are in force till 1 of March 2019. In accordance with the new Animal Breeding Law the new regulation on registration of farming animals the herds and holdings thereof and the procedures for identification of farming animals shall be implemented after its adoption in the cabinet of ministers.</p>	
Emergency response activities	If an outbreak of SVD or an individual infection is detected, the State Chief	Regulations of Cabinet of Ministers 17.12.2007. No. 862 “Procedures of Swine	

	Food and Veterinary Officer shall inform the Ministry of Agriculture thereof. If the outbreak of SVD is close to the national border and the quarantine area covers the territory of two or more countries, the Food and Veterinary Service shall cooperate with the competent authority for surveillance of communicable diseases in the neighboring country and agree on the measures to be taken.	vesicular disease outbreak eradication and threat prevention”	
Seizure, depopulation, and compensation		<p>1) Regulations of Cabinet of Ministers 17.12.2007. No. 862 “Procedures of Swine vesicular disease outbreak eradication and threat prevention”;</p> <p>2) Regulations of Cabinet of Ministers 15.03.2005. No.177 “Procedures how animal owner receives compensation for the losses which incurred by the infectious disease outbreak or an epizootics outbreak when diseases are under the state supervision”</p>	<p>Last amendments: Regulations of Cabinet of Ministers 16.08.2017. No. 482 “Amendments on Regulations of Cabinet of Ministers 15.03.2005. No.177 “Procedures how animal owner receives compensation for the losses which incurred by the infectious disease outbreak or an epizootics outbreak when diseases are under the state supervision””</p>

Disease under review: African swine fever (ASF)

Animal Health Activity	Description	Authorizing Legal Act(s) or Regulation(s)	Date(s) Authorizing Legal Act(s) or Regulation(s) Last Amended
Disease notification	The Regulations prescribe the reporting and registration of the state-controlled animal infectious diseases and the procedures by which the owner or holder of the animals, the legal entity performing laboratory examinations, if the person is involved in food, animal, environmental and in laboratory control of animal feed (accredited laboratory), authorized veterinarian at slaughterhouse, practicing veterinarian or any other person having relevant information, shall report infectious diseases to the Food and Veterinary Service.	Regulations of Cabinet of Ministers 21.02.2012. No. 127 „Regulations on public supervision existing animal infection diseases, which must be notified and included in register; procedure, how to provide information about them to Food and Veterinary Service”	Last amendments: Regulations of Cabinet of Ministers 07.09.2018. No. 488 “Amendments on Regulations of Cabinet of Ministers 21.02.2012. No. 127 „Regulations on public supervision existing animal infection diseases, which must be notified and included in register; procedure, how to provide information about them to Food and Veterinary Service””
On-farm inspections		In accordance with Commission Implementing decision (2014/709/EU) of 9 October 2014 concerning animal health control measures relating to African swine fever in certain Member States and repealing Implementing Decision 2014/178/EU and Regulations of Cabinet of Ministers 17.02.2004. No.83 „Procedures of African swine fever elimination and threat prevention”	
Import, export, and internal movement controls	In accordance with Commission Implementing decision (2014/709/EU) of 9 October 2014 concerning animal health control measures relating to African swine fever in certain Member States and repealing Implementing Decision 2014/178/EU there is prohibition to move out from the restricted zone to other Member States or third countries the live domestic pigs, consignments of	In accordance with Commission Implementing decision (2014/709/EU) of 9 October 2014 concerning animal health control measures relating to African swine fever in certain Member States and repealing Implementing Decision 2014/178/EU and Regulations of Cabinet of Ministers 17.02.2004. No.83 „Procedures of African swine fever elimination and threat prevention”	

	porcine semen, ova and embryos of swine origin, fresh pig meat and certain meat preparations and meat products of swine origin, animal by-products, wild boars.		
Quarantine of animals or farms	In routine movements of animals there is no specific requirement for quarantine of animals before they are sent to other holdings. If there is an outbreak of the diseases (for example: ASF), the restricted zones must be established around outbreak (3 kilometers protection zone and 10 kilometers surveillance zone). The movements of animals to and from these zones are under specific restrictions and provisions.	The restricted zones must be established in accordance with Regulations of Cabinet of Ministers 17.02.2004. No.83 „Procedures of African swine fever elimination and threat prevention” point 37.	
Vaccination for the disease(s) under review	Vaccinations of domestic pigs are prohibited.	Regulations of Cabinet of Ministers 17.02.2004. No.83 „Procedures of African swine fever elimination and threat prevention” point 13.	
Surveillance for the disease(s) under review		SANTE/7113/2015 - Rev 10 WORKING DOCUMENT Strategic approach to the management of African Swine Fever for the EU; Commission Implementing decision (2014/709/EU) of 9 October 2014 concerning animal health control measures relating to African swine fever in certain Member States and repealing Implementing Decision 2014/178/EU	
Control and eradication of the disease(s) under review		Regulations of Cabinet of Ministers 17.02.2004. No.83 „Procedures of African swine fever elimination and threat prevention”	Last amendments: Regulations of Cabinet of Ministers 18.09.2018. No. 595 “Amendments on Regulation of cabinet of ministers “17.02.2004. No.83 „Procedures of African swine fever elimination and threat prevention”
Animal identification and farm registration		Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000	

		<p>establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products and repealing Council Regulation (EC) No 820/97;</p> <p>Council Regulation (EC) No 21/2004 of 17 December 2003 establishing a system for the identification and registration of ovine and caprine animals and amending Regulation (EC) No 1782/2003 and Directives 92/102/EEC and 64/432/EEC.</p> <p>Regulations of Cabinet of Ministers 15.07.2014. No. 393 “Procedures for registration of farming animals, the herds and holdings thereof and the procedures for identification of farming animals” are in force till 1 of March 2019. In accordance with the new Animal Breeding Law the new regulation on registration of farming animals the herds and holdings thereof and the procedures for identification of farming animals shall be implemented after its adoption in the cabinet of ministers.</p>	
Emergency response activities	<p>If an outbreak of ASF or an individual infection is detected, the State Chief Food and Veterinary Officer shall inform the Ministry of Agriculture thereof. If the outbreak of ASF is close to the national border and the quarantine area covers the territory of two or more countries, the Food and Veterinary Service shall cooperate with the competent authority for surveillance of communicable diseases in the neighboring country and agree on the measures to be</p>	<p>Regulations of Cabinet of Ministers 17.02.2004. No.83 „Procedures of African swine fever elimination and threat prevention”</p>	

	taken.		
Seizure, depopulation, and compensation		<p>1) Regulations of Cabinet of Ministers 17.02.2004. No.83 „Procedures of African swine fever elimination and threat prevention”;</p> <p>2) Regulations of Cabinet of Ministers 15.03.2005. No.177 “Procedures how animal owner receives compensation for the losses which incurred by the infectious disease outbreak or an epizootics outbreak when diseases are under the state supervision”</p>	<p>Last amendments: Regulations of Cabinet of Ministers 16.08.2017. No. 482 “Amendments on Regulations of Cabinet of Ministers 15.03.2005. No.177 “Procedures how animal owner receives compensation for the losses which incurred by the infectious disease outbreak or an epizootics outbreak when diseases are under the state supervision””</p>