



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR HEALTH AND FOOD SAFETY

Directorate F - Food and Veterinary Office

DG(SANTE) 2015-7563 - MR

**FINAL REPORT OF AN AUDIT
CARRIED OUT IN
ESTONIA
FROM 02 MARCH 2015 TO 06 MARCH 2015
IN ORDER TO
EVALUATE THE IMPLEMENTATION OF ANIMAL HEALTH CONTROLS IN
RELATION TO AFRICAN SWINE FEVER**

Executive Summary

The report describes the outcome of an audit carried out by the Food and Veterinary Office in Estonia from 2nd to 6th March 2015.

The objective of the audit was to evaluate whether relevant legal requirements and standards applicable to African swine fever (ASF) have been implemented effectively to achieve the objectives of:

- Early detection of ASF by active and passive surveillance;
- Preventing the disease from spreading into domestic pig population in the infected area;
- Preventing the disease from spreading outside the infected area via live domestic pigs, meat or meat products from domestic or feral pigs; and
- Providing sufficient guarantees that restrictions of movement of live pigs, germplasm, meat or meat products from domestic or feral pigs are applied as per Union legislation.

Overall, the report concludes that:

The active and passive surveillance arrangements in place throughout Estonia are effective in ensuring early detection of ASF in wild boar and should allow the early detection of ASF should it spread to the domestic pig population.

There has been an extensive and effective information campaign for hunters and farmers to raise their awareness in relation to ASF. Measures to prevent the spread of ASF from wild boar to domestic pigs are in place and are effective, but the weaknesses observed in the biosecurity of larger pig farms increase the risk of indirect contact with wild boar.

Epidemiological information may be missed as official veterinarians do not inspect all shot wild boar in the infected areas, but this weakness is alleviated by the procedures in place to ensure they are sampled and tested for ASF.

Restrictions on movement of live pigs and meat from domestic and feral pigs largely comply with EU requirements. Wild boar meat with restricted marketing authorisation is adequately channelled. The random selection of pigs for sampling to comply with Commission Implementing Decision 2014/709/EU requirements, instead of using a more targeted approach to include any sick pigs present on the farm, reduces the probability to detect the disease. The use of available herd register information to check residency requirements is not used in all cases and would weaken the system in place to ensure that pigs moving did not present a risk. This does not have any implication at present as the disease has not spread to domestic animals.

No issues requiring immediate action were identified during the audit.

The report makes recommendations to the competent authorities aimed at addressing areas in which further improvements are required.

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ABBREVIATIONS AND DEFINITIONS USED IN THIS REPORT

Abbreviation	Explanation
ARIB	Agricultural Registers and Information Board
ASF	African swine fever
AV	Authorised veterinarian
CA	Competent authority
CSF	Classical swine fever
ELISA	Enzyme- linked immunosorbent assay
PCR	Polymerase chain reaction

1 INTRODUCTION

This audit took place in Estonia from 2 to 6 March 2015 as part of the planned audit programme of the Food and Veterinary Office (FVO). The audit team comprised two FVO auditors. At the opening meeting on 2 March the team confirmed the objectives and scope of the audit as well as the itinerary.

The FVO audit team was accompanied by a representative from the central competent authority, the Veterinary and Food Board, throughout the audit.

2 OBJECTIVES

The objective of the audit was to evaluate whether relevant legal requirements and standards applicable to African swine fever (ASF) have been implemented effectively to achieve the objectives of:

- Early detection of ASF by active and passive surveillance;
- Preventing the disease from spreading into domestic pig population in the infected area;
- Preventing the disease from spreading outside the infected area via live domestic pigs, meat or meat products from domestic or feral pigs; and
- Providing sufficient guarantees that restrictions of movement of live pigs, germplasm, meat or meat products from domestic or feral pigs are applied as per Union legislation.

The scope included holding registration and animal identification for pigs, regionalisation and census of pigs in infected areas, biosecurity on holdings and hunting grounds, movement controls of pigs, controls on porcine meat and meat products of feral origin and passive and active surveillance in the infected areas.

Preparedness for outbreaks was excluded from the scope of this audit. Contingency planning was assessed during an audit in 2013 (DG(SANCO)2013-6781-MRFINAL). This report is available at:

http://ec.europa.eu/food/fvo/audit_reports/details.cfm?rep_id=3160

The implementation of border controls against ASF were also excluded from the scope of this audit as this topic was covered by another FVO audit in 2014 (DG(SANCO)2014-7293-MRFINAL). This report is available at:

http://ec.europa.eu/food/fvo/audit_reports/details.cfm?rep_id=3302

The FVO audit team met/visited the following:

Site visited/Authority met	Number	Comments
Central Competent Authority	2	Opening and closing meetings
Regional Competent Authority	2	Valgamaa and Laane-Virumaa
Game handling establishment	1	
Hunter association	1	
Pig holdings	5	3 commercial and 2 backyard farms
Pig Slaughterhouse	1	

3 LEGAL BASIS

The audit was carried out under the general provisions of EU legislation, in agreement with the competent authority of the country, and in particular under:

- Article 45 of Regulation (EC) No 882/2004 of the European Parliament and of the Council on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules;
- Article 20 of Council Directive 2002/60/EC laying down specific provisions for the control of African swine fever and amending Directive 92/119/EEC as regards Teschen disease and African swine fever.

Other relevant legislation for this audit is mentioned in the Annex to this report.

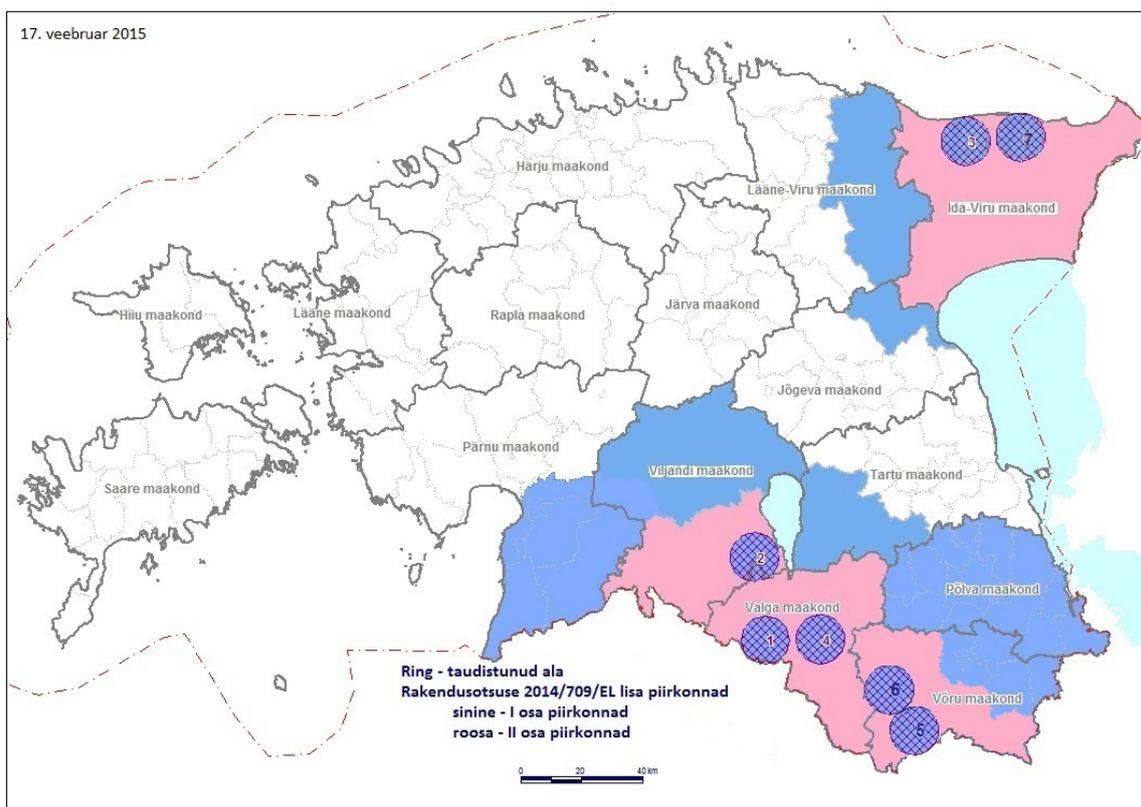
4 BACKGROUND

Since the declaration of outbreaks of African swine fever in Georgia in 2007, the disease has expanded to several neighbouring countries: it was identified in feral and domestic pigs in Armenia and Russia the same year, in Ukraine in 2012, and in Belarus in 2013.

Estonia informed the Commission of the confirmation of the disease in a feral pig along its border with Latvia on 8th September 2014. Commission implementing decision 2014/709/EU, from 9 October 2014, defines the infected areas in Estonia in which measures foreseen by EU legislation, following the confirmation of African swine fever in feral pigs, apply.

Figure 1 shows, for Estonia, the seven infected areas established by CA, the areas included in Part I and Part II to the Annex of Commission Implementing Decision 2014/709/EU and the remainder of Estonia not currently under restriction for ASF. (see paragraph 4 for more detail)

Figure 1.



5 FINDINGS AND CONCLUSIONS

5.1 ORGANISATION OF THE OFFICIAL CONTROL SYSTEM

Legal basis: Regulation (EC) No 882/2004; Directive 2002/60/EC (Articles 15 and 16, Annex VI)

Findings

1. The structure and organisation of the CA, as well as the control system for animal health is described in the Country Profile of Estonia at:
http://ec.europa.eu/food/fvo/country_profiles/details.cfm?co_id=EE
2. The Veterinary and Food Board is responsible for official controls in animal health and it is in charge of planning, coordination and implementation of controls through county level structures. Each of the 15 county veterinary centres has contracts with private veterinarians to provide assistance with animal health, animal welfare and public health duties. The CA indicated these authorised veterinarians (AVs) are authorised for a period of five years and their contract is renewed on an annual basis.
3. The Agricultural Registers and Information Board (ARIB) is a government body under the Ministry of Agriculture. It is responsible for maintaining national registers relating to farms and farm animals and issuing holding numbers.
4. For the purposes of ASF control, Estonia is divided into 4 areas :

- Infected area –consists of an area with an 8km radius around the primary case. At time of audit, seven infected areas had been defined – all infected areas are contained within Part II (see Figure 1).
 - Part I – Established due to certain proximity to the infection in the feral pig population.
 - Part II – Established due to infection in the feral pig population.
 - The rest of the territory of Estonia – no specific ASF movement controls in place.
5. The national legislation in place provides the CA with sufficient competencies and powers to implement animal health controls relating to ASF:
 - Directive 2002/60/EC is transposed into national legislation by the Regulation of the Ministry of Agriculture, No 179. CA stated an amendment to this Regulation was being drafted which will make the official post mortem examination of home slaughtered pigs compulsory. CA stated that Implementing Decision 2014/709/EU was directly applicable in Estonia and that the Infectious Animal Disease Control Act provided the necessary powers for enforcement and penalties.
 - Decree 1-4.1/14/438 of the Environmental Board prohibits hunting wild boar (in Part II) with dogs to minimise disturbance and movement of wild boar. Decree 1-4.1/14/481 of the Environmental Board requires hunters to notify the Veterinary and Food Board of wild boar shot in Part II and any wild boar shot in Part I and intended to be moved out of Part I to other areas in the territory of Estonia.
 - Decree No 117 of the Ministry of Agriculture prohibits the keeping of pigs outdoors and was introduced, on 25/07/14, after the first positive cases of ASF were confirmed in Northern Latvia.
 6. The CA submitted an Eradication Plan for ASF, as required by Article 16(1) of Directive 2002/60/EC, to the Commission in December 2014. This eradication plan was taken to the PAFF committee for approval on 5th March (during the FVO audit)¹.
 7. In line with Article 4 of Regulation (EC) No 882/2004 there are designated competent authorities for all the tasks related to ASF controls.
 8. In the regions visited, AVs had a role in surveillance for ASF and carried out inspection, sampling and certification duties to permit the movement of pigs from the areas listed in the Annex to Decision 2014/709/EU. This included movements within Part II, from Part II to other territories within Estonia and from Part I to other countries. On a monthly basis, AVs submit a record of ASF related duties to county veterinary officials.
 9. CA has established an expert group as required by article 15 (2)(a) of Directive 2002/60/EC. The group was established and met following confirmation of first case of ASF. Membership is drawn from the Veterinary and Food Board, Veterinary Food Laboratory, hunters association and Environment Board with the possibility to include police and border staff if required (to date, they have not been used). So far, this group has not exercised all the duties required by the Directive. In particular, the expert group did not assist CA in defining infected areas as required by article 15(2)(a) of Directive 2002/60/EC -the CA stated this was purely the competence of the Veterinary and Food Board. FVO audit team noted infected areas were always contained within Part II. All members of expert group receive weekly update on ASF from CA.
 10. Staff performing official control duties received training which enables them to perform their duties competently in line with Article 6 to Regulation (EC) 882/2004. The CA

¹ Commission Implementing Decision (EU) 2015/570 of 7 April 2015 approved the plan submitted by Estonia for the eradication of ASF in the areas referred to in the Annex to Implementing Decision 2014/709/EU.

arranged several training sessions relating to ASF throughout Estonia for AVs and official veterinarians from October 2014 onwards. An example of agenda and attendance list was made available to the FVO audit team.

11. The Environment Board and Environment Inspectorate are government authorities under the Ministry of the Environment with responsibility for hunting activities in Estonia. Responsibilities include hunting quota, census of wild animals and licensing of hunters.

Conclusions on organisation of official controls

12. The structure and organisation of the CA allows them to perform their control tasks on ASF adequately. Control and eradication of ASF is a high priority for the Veterinary and Food Board and legislation is in force for this purpose.
13. An expert group has been established to assist CA in the control and eradication of ASF. The consequences of this expert group not being involved in the establishment of infected areas as required by Directive 2002/60/EC is limited by the fact that controls required in an infected area have been implemented throughout Part II.
14. Training provided to staff helps ensuring uniform implementation of official controls.

5.2 HOLDING REGISTRATION, ANIMAL IDENTIFICATION, MOVEMENT CONTROLS

Legal basis: Article 18 of Council Directive 64/432/EEC; Council Directive 2008/71/EC; Article 15 of Council Directive 2002/60/EC; Commission Decision 2006/80/EC; Commission Decision 2000/678/EC.

5.2.1 System in place

Findings:

15. There is national legislation relating to identification and registration of farm animals including pigs, i.e Regulation of the Ministry of Agriculture, No 128 adopted on 21 December 2009.
16. The Agricultural Registers and Information Board (ARIB) is a government body under the Ministry of Agriculture. It is responsible for maintaining national registers relating to farms and farm animals and issuing holding numbers.
17. ARIB database provides the CA with an up-to-date list of all the holdings which keep pigs, in line with Article 3 to Directive 2008/71/EC, including the keeping of a single animal. The CA has direct access to ARIB database.
18. The information in ARIB database contains all the information required by Article 1(1) to Commission Decision 2000/678/EC. For pigs, data recorded included holding number, keeper name and address, date holding registered, geographic coordinates and the number of pigs recorded at last annual census. Additionally, database could be used to demonstrate infected areas for ASF.
19. Pig keepers must provide census information on numbers of pigs kept on an annual basis (1st May) and there is no requirement for them to provide additional movement notifications.
20. Pigs are identified in line with Article 5 of Council Directive 2008/71/EC. The Regulation of the Ministry of Agriculture, No 128 21.12.2009 requires pigs to be identified with a tattoo or a plastic ear tag identifying holding of birth and pigs sent for slaughter must have a mark identifying the holding from where they have been despatched. In the lairage

visited, the pigs observed had an identification mark. The identification mark was frequently illegible making it difficult to determine the holding of origin – only after slaughter and processing could the identification mark be read and holding of origin determined.

21. There is no prescribed format for herd registers in Estonia and not all pig keepers visited kept a register of pigs on the holding fully in line with Article 4 to Council Directive 2008/71/EC. The registers examined ranged from electronic records which could demonstrate, in addition to movement of pigs on and off the holding, movements of pigs between subunits on the same holding through to rudimentary records in a backyard holding based on sales invoices which did not record accurately date of despatch or where pig was sent.
22. When pigs are dispatched for slaughter from farms within Part II, this is carried out in accordance with article 3(1) of Implementing Decision 2014/709/EU. In practice, CA have interpreted this requirement as inspecting holdings at least twice per annum with at least a four month interval between inspections and sampling of pigs using PCR(based on 95% confidence in detecting 10% prevalence).The CA informed FVO audit team that clinical examination took place at time of sampling pigs.
23. Movement of pigs from farms within Part II to slaughter must be accompanied by a national veterinary certificate 9T which includes the ARIB number of herd of origin, number of pigs in the consignment and ASF test results for the herd.
24. During a visit to an abattoir, all 9T certificates examined were accompanied by food chain information which correctly recorded the regional animal health status as required by Annex II, Section III(3)(a) to Regulation (EC) No 853/2004. A daily kill programme was produced by the food business operator and it could be cross referenced to ARIB holding number and producer. The kill programme also highlighted herds originating within Part II. The official veterinarian received a daily copy of this list and had a list of the operator's suppliers in Part II for reference. Official veterinarian's ante-mortem tasks included evaluation of national certificate 9T and food chain information for pigs originating from Part II.
25. National movement of pigs from holdings within Part II to other herds within Estonia is also carried out in accordance with Article 3(1) and (3) of Implementing Decision 2014/709/EU and national veterinary certificate 7E is used.
26. The FVO audit team reviewed one holding, which moved pigs out of Part II. The CA advised that the selection of pigs to sample was random. Herd medicine records, for this holding, showed a selection of pigs had been treated with antimicrobials on a regular basis during the months leading up to one such inspection visit. No consideration had been given by AV to sample sick pigs which is not in line with Chapter IV.A(2) of Commission Decision 2003/422/EC and with what was agreed at a strategy meeting for ASF held in Vilnius between 8 – 10 October 2014.
27. The CA authorises the dispatch to other Member States and third countries of live pigs from Part I using derogation permitted by Article 8(2)(a)(b)(d) of Decision 2014/709/EC. Health certificates were available for such consignments showing the additional wording "Pigs in compliance with Article 8(2) of Commission Implementing Decision 2014/709/EU".
28. In one holding within Part I where pigs had been certified to another Member State, the herd register showed movements of pigs into this holding from an area contained in Annex to Decision 2014/709/EU during the 30 days prior to certification. This had not been noted

by certifying veterinarian and is not in accordance with Article 8(2)(a) of Commission Implementing Decision 2014/709/EU.

29. CA confirmed there are no markets, assembly centres or semen collection centres located in the areas listed in Part II of Annex to Commission Implementing Decision 2014/709/EU.

5.2.2 Official controls

30. Following the detection of ASF in wild boar, the CA implemented the measures required by Article 15 to Directive 2002/60/EC including the establishment of infected areas, census and CA authorisation of pig movements. Additional national control measures include the monthly inspection of all pig holdings in infected areas.
31. Based on ARIB database and local county veterinary knowledge, Veterinary and Food Board visited all pig farms in Estonia during August and September 2014. During the census, 920 holdings with one or more pigs were visited and 20 additional pig holdings, not registered on ARIB, were identified and visited. CA confirmed that ARIB database was updated at the time to record these new pig holdings but was not updated with the census information (i.e the number of pigs in each holding was not updated).
32. All pig holdings in the seven infected areas are visited monthly by AVs. The purpose of the inspections is to increase awareness to ASF, promote and check biosecurity rules are implemented and verify health status and that restrictions are in place. Additionally, AVs record the number of pigs present during inspection and any change in the number of pigs from the previous month – these updated census details were seen to be available in a Regional office visited but were not updated on ARIB and consequently not available nationally.
33. The controls in the different areas are as follows:
- 1) Infected area - All pig holdings are inspected monthly by AVs to ensure biosecurity rules are implemented, verify health status and that restrictions are in place.
 - 2) Part I –. Controls were established for the movement of wild boar carcasses from Part I to other areas in the territory of Estonia not listed in the Annex to Implementing Decision 2014/709/EU and included laboratory testing of each wild boar carcass to be moved from Part I (see 5.5.1)
 - 3) Part II –Controls are the same as for infected areas with exception pig holdings in Part II do not receive a monthly inspection by AV.
 - 4) The rest of the territory of Estonia – no specific ASF movement controls in place.

Conclusions

34. The compliance of the national system for holding registration, animal identification, movement controls and restrictions on live animals from restricted areas with legal requirements provides the CA with a solid basis to control ASF. Deficiencies observed in herd registers and animal identification weaken the traceability of live pigs, which would pose a problem for controlling the spread of the disease if ASF spreads to domestic pigs. The absence of a mechanism to use county information to update the central ARIB database would imply certain delay in getting a national overview- should this be needed.
35. Current controls minimise the likelihood of the disease spreading outside the infected area via live domestic pigs but shortcomings in the verification of residency requirements and on targeted pre-movement sampling could have a negative impact in the containment of the disease if it spreads to domestic pigs.

5.3 BIOSECURITY MEASURES

Legal basis: Directive 2002/60/EC

5.3.1 *Biosecurity in relation to wild boar*

Findings

36. The hunting season for wild boar in Estonia runs from 1st March to 28th February the following year. The estimated wild boar population is 20 000. Estonia is divided into 324 hunting areas and hunting councils have been established at County level to represent a number of hunting areas. The hunting council responsibilities include setting annual hunting bags and for ASF controls, representative of hunting council confirmed they had distributed information relating to e.g. regionalisation and restrictions on hunting methods to members.
37. The CA website (<http://www.agri.ee/et/seakatk>) contains extensive instructions and guidance for hunters and farmers. Topics covered include biosecurity, details of the regions affected by the Annex to Implementing Decision 2014/709/EU and recommended disinfectants. In addition, the Veterinary and Food Board confirmed they have had five regional meetings for hunters.
38. The CA advised there was no ban on supplementary feeding of wild boar at previously established feeding sites but no new feeding areas could be established. The Veterinary and Food Board stated this was to minimise movement of wild boar beyond their usual habitat and consequently reduce the risk of ASF spread.
39. To further reduce the risk of dissemination of infection, CA had recently introduced five animal-by-product containers for collection of wild boar carcasses found dead in restricted areas. CA indicated that when hunted wild boar were eviscerated in the forest, viscera had to be buried to a depth of at least 0.5m.
40. CA stated wild boar carcasses pending laboratory results are held in one of four hunting houses within Part II or hunters may store them at their house. Hunter representative confirmed that, in addition, wild boar were also kept in the forest suspended from trees. An application for EU funding for eradication of ASF in Estonia includes a proposal to purchase ten chilling units for storage of wild boar pending test results.
41. One district veterinary office visited provided hunters, at no charge, with a supply of disinfectant and had produced a comprehensive and practical aide memoire targeted for hunters on biosecurity. This included advice relating to cleaning and disinfection of all footwear and clothes, the need to stay away from animal holdings and not to bring hunted wild boar to premises keeping pigs, the requirement to notify county veterinarian if enlarged lymph nodes or spleen noticed during dressing of carcass and not to feed waste from hunted wild boar to livestock. The FVO audit team considered this an example of good practice.

5.3.2 *Biosecurity in relation to pigs*

42. The Infectious Animal Disease Control Act (RT I 1999, 57, 598) includes a list of compulsory biosecurity measures required in Estonia. This list includes the restriction of wild and domestic animal access to livestock buildings and other relevant measures that are necessary for controlling the spread of animal diseases.

43. During the national census carried out in August and September 2014 the CA inspected all pig holdings in Estonia. Oral advice and information leaflets (in both Estonian and Russian) relating to ASF were given to all pig owners during these inspections. The biosecurity advice was in line with the requirements of Article 15 of Directive 2002/60/EC i.e. disinfection before entering livestock buildings and hygiene measures to prevent direct and indirect contact with feral pigs.
44. Decree No 117 prohibits the keeping of pigs outdoors and was introduced on July 2014, after the first positive cases of ASF were confirmed in Northern Latvia.
45. According to the CA, the visits to all pig farms within infected areas by an AV on a monthly basis included biosecurity advice. In one region with infected areas, the FVO audit team saw records of individual AV activity showing date of visit, holding number, if compliant with biosecurity requirements, health of pigs, number of pigs present during inspection and signed by herd owner.
46. One large pig producer, within Part II, with multiple farms confirmed they had identified hunters within workforce and established further biosecurity measures they had to follow e.g. not using same transport they used for hunting to come to work in. Their pig farm visited by FVO audit team had good biosecurity measures in place including a stock proof perimeter fence and restricted points of access for personnel and vehicles. There was a station for disinfection of vehicles beside vehicle entrance and a disinfection mat at personnel entrance.
47. Two additional commercial pig farms, within Part I, were visited and their biosecurity measures were not fully in compliance with Article 15(2)(b) of Directive 2002/60/EC insofar as indirect contact with wild boar was possible:
 - Feed storage bins on both farms were sited outside the buildings housing pigs. All bins examined by the FVO audit team had quantities of feedstuff on the ground which could attract wild boar from surrounding open fields and woodland.
 - These two farms were accessed by non- metalled roads and it was not clear where disinfection of lorries took place i.e. once they had arrived at the farm or at some point on road leading to the farm.
48. At the time of the audit, it was not compulsory for pig farms to be fenced. The CA stated that they proposed to introduce legislation in April 2015 requiring all pig farms to have a perimeter fence.
49. Estonia has a relatively small number of backyard farms (approximately 670). In both backyard farms visited, pigs were housed and herd owners were aware of biosecurity requirements contained in information leaflets distributed in August / September 2014.

Conclusions on biosecurity measures

50. There has been an extensive and effective information campaign for hunters and farmers to raise their awareness in relation to ASF. This should ensure continued early detection of ASF in wild boar, reduce the likelihood of spread to domestic pigs and help in early detection should it spread to the domestic pig population.
51. Biosecurity measures at farms contributes to the protection of the domestic pig population from ASF. The proposed introduction of legislation to require fencing will improve biosecurity but there will be an inevitable time delay in implementation. The shortcomings in biosecurity measures observed in commercial farms (e.g. presence of feed outside

buildings) increase the risk of indirect contact with wild boar.

5.4 SURVEILLANCE

Legal basis: Articles 15 and 16 of Directive 2002/60/EC, Commission Decision 2003/422/EC; article 12 of Regulation (EC) No 882/2004.

5.4.1 Surveillance in wild boar

Findings:

52. Surveillance measures include:
- All wild boar found dead must be sampled and tested for ASF using polymerase chain reaction (PCR) and enzyme- linked immunosorbent assay (ELISA) techniques.
 - All hunted wild boar in Part II and approximately 2% of hunted wild boar in the remainder of the territory of Estonia must be sampled and tested for ASF.
 - Further surveillance of wild boar is carried out on carcasses moving from Part I to other areas in the territory of Estonia (see Section 5.5.1)
53. Laboratory results available for 2015, until 20 February, demonstrate an increasing number of shot wild boar being ASF positive. In this period, 63% of hunted wild boar (28 out of 44) were ASF positive compared to 11% (8 out of 73) in the period September to December 2014.
54. Sampling requirements are detailed in a national animal health disease sampling plan – the 2015 plan includes instruction on which wild boar must be sampled. County office veterinarians or AVs must be informed of all wild boar which are found dead and they attend, sample and submit samples from these fallen animals to the laboratory.
55. County office veterinarians must be informed of all hunted wild boar in Part II (which includes all infected areas) since 30 October 2014 (Decree of the Environmental Board). In these circumstances, hunter takes blood sample and delivers to county veterinarian or AV who then completes laboratory submission form, despatches sample and marks the hunters permit to record receipt of sample. Submission form includes epidemiological information required by article 16(3)(h) of Directive 2002/60/EC. FVO audit team noted that one laboratory submission form reviewed did not contain all epidemiological information required, specifically, age and sex of pigs.
56. CA stated that hunted wild boars in the seven infected areas were not inspected by an official veterinarian as required by Article 15(2)(c) of Directive 2002/60/EC.
57. In response to the possibility of hunters withdrawing cooperation in reporting wild boar found dead, CA stated that they, in cooperation with Expert Group, introduced a financial incentive to maintain levels of reporting. This contract with hunters was signed on 26 February 2015 and results in hunters being paid 70 euros if carcass is buried by hunter following official sampling and 35 euros if hunter takes carcass to one of five central ABP collection areas.
58. In 2014, 1056 wild boar were sampled for ASF with a distribution of found dead / hunted of 175 / 879. For 2015 to 20 February, 1008 wild boar have been sampled with a distribution of found dead / hunted of 28 / 980. In both years, samples have been obtained from all 15 counties of Estonia. On a weekly basis, the veterinary laboratory distributes ASF laboratory results to the Veterinary and Food Board.

59. The hunting council representative interviewed (located in Part II) had a hunting bag of 1200 wild boar for the March 2014-February 2015 season. By end of January 2015 approximately 650 wild boar had been shot and representative stated they would not meet their target citing the prohibition on use of dogs for hunting as the main reason for this.

5.4.2 Surveillance in pig holdings

60. Sampling requirements are detailed in a national animal health disease sampling plan and is a combination of active and passive surveillance. Active surveillance for ASF is carried out during
- the inspection and sampling of domestic pigs within Part II for movement within Part II or for movement to other territories within Estonia;
 - the inspection and sampling of domestic pigs within Part I for movement of domestic pigs to other Member States and third countries.
61. Passive surveillance was performed in pig abattoirs. In one abattoir visited, the records reviewed showed sampling and testing (PCR and ELISA) of all dead on arrival pigs. This abattoir sourced pigs from 11 counties in Estonia. For 2014, 115 pigs were sampled and in 2015, up to the time of audit, 21 pigs had been sampled. No pigs had been identified at ante mortem examination as suspect ASF cases. The CA provided passive sampling figures for a further two abattoirs located in two different counties showing an additional 47 dead on arrival pigs being sampled in 2014 and a further 5 dead on arrivals being sampled in 2015 to time of audit.
62. In the abattoir visited, the official veterinarian had attended training relating to diagnosis of ASF and CSF in an abattoir (30 June / 1 July 2014), to Decision 2014/709/EC (20 November 2014) and Better Training for Safer Food (BTSF) training on ASF (16 December 2014). The FVO audit team saw the agenda and list of attendees for the BTSF training.
63. Currently there is no requirement for veterinary involvement in home slaughter of pigs. A planned amendment to the Regulation of the Ministry of Agriculture, No 179 will make it compulsory for herd owner to notify AV when they carry out home slaughter of a pig and the AV would then perform a post mortem examination.
64. As a result of active and passive surveillance in 2014, 2100 domestic pigs were tested for ASF across 14 counties and in 2015 to 20 February, 112 domestic pigs have been tested for ASF across five counties.

4.4.3 Laboratory testing

65. The Veterinary and Food Laboratory Tartu is the National Reference Laboratory for ASF and is currently the only laboratory performing tests for ASF in Estonia. It is accredited in accordance with the European standard EN ISO/IEC 17025 as required by Article 12(2) of Regulation (EC) No 882/2004.
66. The laboratory participated in a proficiency test organised by European Union Reference Laboratory (EURL) for ASF in 2014. Their ASF diagnostic results - serological (INGENASA ELISA) and virological (OIE prescribed conventional PCR developed by Agüero et al., 2003)- were reported by EURL as "fit for purpose" to give a correct diagnosis of ASF in field samples on 5th March 2014.
67. The scope of accreditation for the laboratory, dated 20 February 2015, includes method 5MA-TJ-47 for real-time PCR detection of ASF genome². Prior to this date, the method

was not accredited e.g. reports issued on 16 October 2014 and on 15 January 2015 both highlight the method is not accredited.

68. Method 5MA-TJ-47 is used for testing single samples from wild boar or domestic pigs. When sampling of domestic pigs occurs in accordance with article 3(1) and (3) and article 8(2) of Decision 2014/709/EC, the veterinary laboratory may pool these samples in batches up to a maximum of five samples prior to testing. Laboratory representatives confirmed they had validated the pooling of up to five samples by using negative domestic pig serum samples and spiking them with PCR positive wild boar samples.
69. Subsequent to the audit, the FVO team confirmed with the ASF EURL that the use of PCR test for up to three pooled samples could be used but they did not have any scientific study evaluating the possibility to use the PCR method for five pooled samples. The EURL considers that to evaluate the possibility of pooling five samples a further study should be carried out which includes the use of virus positive field samples with different virus content. Consequently, EURL consider using the PCR method (Tignon et al, 2011) with five pooled samples could give false negative results in case of field samples with low amounts of virus.

Conclusions on surveillance

70. The extensive and effective information campaign for hunters and farmers to raise their awareness in relation to ASF (see paragraph 50) along with financial incentives, maximises the reporting of dead wild boar for surveillance purposes.
71. The effective surveillance for ASF in wild boar is strengthened by the organisation of sampling and testing of all shot wild boar in Part II which goes beyond the requirements.
72. The fact that not all shot wild boar in an infected area are officially inspected may reduce epidemiological information available to CA, but this weakness is alleviated by the procedures in place to ensure they are sampled and tested for ASF.
73. Sampling data from suspect pigs in abattoirs provides evidence of good passive surveillance covering a wide geographical area. The monthly visits to pig farms within infected areas and surveillance activities to permit movement of domestic pigs from Part I and II provides assurances that the presence of ASF would be quickly detected in the domestic pig sector.
74. The pooling of five samples implies a risk of not detecting ASF if there is a low virus presence in a single positive sample within the pooled samples. The pooling of five samples, using method 5MA-TJ-47, is used when domestic pigs are sampled to meet surveillance requirements for movements out of Part II to other territories within Estonia and from Part I to other member states and third countries. The risk is reduced, to some extent, by the fact that these animals are clinically examined during sampling for movement purposes.
75. The active and passive surveillance arrangements in place throughout Estonia should quickly detect any new cases of ASF in wild boar and any spread of ASF to the domestic pig population.

² This method is based on: Tignon M., Gallardo C., Iscaro C., Hutet E., Van der Stede Y., Kolbasov D., De Mia G. M., Le Potier M-F., Bishop R.P., Arias M., Koenen F. (2011). Development and inter-laboratory validation study of an improved new real-time PCR assay with internal control for detection and laboratory diagnosis of African swine fever virus. *Journal of Virological Methods*. 178: 161-170

5.5 TRACEABILITY OF MEAT AND MEAT PRODUCTS

Legal basis: Commission implementing decision 2014/709/EU; Council Directive 2002/99/EC; Annex II, section III of Regulation (EC) No 853/2004; Regulation (EC) No 854/2004.

5.5.1 Traceability of wild boar

Findings:

76. A derogation system, in line with Article 15(2) of Commission Implementing Decision 2014/709/EU, has been established to permit the dispatch of consignments of fresh meat of feral pigs from Part I to other areas in the territory of Estonia not listed in Annex to Commission Implementing Decision 2014/709/EU.
77. Several controls have been put in place to ensure the full traceability of carcasses moving out of Part I:
- Channelling is in place to ensure wild boar meat from Part I was restricted to the national market. The official veterinarian confirmed that there was time separation between processing wild boar meat eligible for trade from that restricted to national market. Consignments of restricted meat were stored on site and each individual tray was seen to be clearly marked with a triangular (national) health mark.
 - Lists of areas in Annex to Commission Implementing Decision 2014/709/EU were available to AV in a processing establishment visited which was located outside the restricted areas to the Annex.
 - AV carried out identification checks on carcasses.
78. The FVO audit team reviewed documentation for a selection of wild boar carcasses from Part I arriving at processing establishment. This included: hunter declaration, copy of laboratory submission form and laboratory test results for individual carcasses for classical swine fever (ELISA) and ASF (PCR and ELISA). The origin of carcasses was stated on documentation. The FVO audit team could not correlate laboratory results to carcasses listed on hunter declaration as the identification number used on hunter declarations were not included on laboratory results.

5.5.2 Traceability of pig meat

79. Article 11(3) of Commission Implementing Decision 2014/709/EU is applied to permit the dispatch to other Member States and third countries of fresh pig meat and of certain pig meat preparations and pig meat products from Part II.
80. No channelling of domestic pig meat is required as all pigs originating in Part II and slaughtered are subject to an inspection and testing regime in compliance with Article 3(1) and (3) of Decision 2014/709/EC. Consequently, all meat originating from these pigs is considered eligible for trade within the EU and is marked with an oval health mark.

Conclusions on traceability of meat, meat products

81. Official controls in place for the national movement of wild boar carcasses from Part I give assurance that such movements are in compliance with Commission Implementing

Decision 2014/709/EU and cause no additional animal health risk.
82. Movements of pig meat are in compliance with Commission Implementing Decision 2014/709/EU.

6 OVERALL CONCLUSIONS

The active and passive surveillance arrangements in place throughout Estonia are effective in ensuring early detection of ASF in wild boar and should allow the early detection of ASF should it spread to the domestic pig population.

There has been an extensive and effective information campaign for hunters and farmers to raise their awareness in relation to ASF. Measures to prevent the spread of ASF from wild boar to domestic pigs are in place and are effective, but the weaknesses observed in the biosecurity of larger pig farms increase the risk of indirect contact with wild boar.

Epidemiological information may be missed as official veterinarians do not inspect all shot wild boar in the infected areas, but this weakness is alleviated by the procedures in place to ensure they are sampled and tested for ASF.

Restrictions on movement of live pigs and meat from domestic and feral pigs largely comply with EU requirements. Wild boar meat with restricted marketing authorisation is adequately channelled. The random selection of pigs for sampling to comply with Commission Implementing Decision 2014/709/EU requirements, instead of using a more targeted approach to include any sick pigs present on the farm, reduces the probability to detect the disease. The use of available herd register information to check residency requirements is not used in all cases and would weaken the system in place to ensure that pigs moving did not present a risk. This does not have any implication at present as the disease has not spread to domestic animals.

7 CLOSING MEETING

A closing meeting was held in Tallinn on 6th March 2015 when the audit team presented the main findings and preliminary conclusions of the audit to the competent authority. During this meeting the competent authority did not indicate any major disagreement with the findings and preliminary conclusions.

8 RECOMMENDATIONS

No.	Recommendation
1.	<p>To ensure the standards defined in Article 3(3) are applied for sampling procedures when this option is selected for the derogation from prohibition of despatch of live pigs from Part II to other areas in Estonia.</p> <p>Article 3(3) of Commission Implementing Decision 2014/709</p> <p>Based on finding 26 and conclusion 35</p>

<p>2.</p>	<p>To ensure the standards defined in Article 8(2) are applied for residency periods when this option is selected for the derogation from prohibition of despatch of live pigs from Part I to other Member States and third countries</p> <p>Article 8(2) of Commission Implementing Decision 2014/709</p> <p>Based on finding 28 and conclusion 35.</p>
<p>3.</p>	<p>Ensure biosecurity on commercial pig farms meet the requirements of Article 15(2)(b) to Directive 2002/60/EC and Article 17 to Decision 2014/709/EU</p> <p>Based on finding 47 and conclusion 51.</p>
<p>4.</p>	<p>Ensure herd register requirements are in compliance with Article 4 of Council Directive 2008/71/EC.</p> <p>Based on finding 21 and conclusion 34.</p>
<p>5.</p>	<p>CA to ensure that all wild boar shot in the infected area are inspected by an official veterinarian.</p> <p>Article 15(2)(c) of Council Directive 2002/60/EC.</p> <p>Based on finding 56 and conclusion 72.</p>
<p>6.</p>	<p>To ensure that when the veterinary laboratory pool samples and the PCR test (Tignon et al, 2011), as currently validated, is used, the pooling does not exceed three samples.</p> <p>ASF EURL opinion.</p> <p>Based on finding 69 and conclusion 74.</p>

The competent authority's response to the recommendations can be found at:

http://ec.europa.eu/food/fvo/rep_details_en.cfm?rep_inspection_ref=2015-7563

ANNEX 1 – LEGAL REFERENCES

Legal Reference	Official Journal	Title
Dir. 2000/60/EC	OJ L 327, 22.12.2000, p. 1-73	Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy