

Standing Group of Experts on African swine fever in the Baltics and Eastern Europe Region under the GFTADs

Expert mission on African swine fever in Lithuania REPORT¹

Period: 30 March – 3 April 2015.

SGE Experts: Silvia Bellini (IZSLER, Italy) Team Leader, Vittorio Guberti (ISPRA, Italy) and Sergei Khomenko (FAO), that unfortunately could not be present.

Places visited during the mission:

- a) *Vilnius*: Central Veterinary Office: opening and closing meetings with the Central Veterinary Authority.
- b) *Kaišiadorys district municipality*: the region belongs to the south part of Lithuania, the part of the Region visited by the Team is by 1st of April listed in Part I of the Annex to CD 2015/558/EU.
- c) *Alytus district municipality*: the region belongs to the south part of Lithuania and it is listed in part II of the Annex to CD 2015/558/EU.
- d) *Ignalina district municipality*: the region belongs to the east part of Lithuania; it is at the border with Belarus. The region is listed in part III of the Annex to CD 2015/558/EU.

In each of the listed *district municipalities*, the Team visited:

- The Local Veterinary Office (LVO) to discuss, at local level, the measure in place and the activities carried out against African swine fever (ASF).
- A commercial pig holding, to discuss bio-security in place.
- A Hunting Ground to discuss with Forestry Officials and/or representatives of the Hunting Association, preventive/eradication measures currently in place for ASF in the wild boar population.

¹ Disclaimer: The views and recommendations expressed in this document are those of the independent experts and may not in any circumstances be construed as the official position of their organisation, nor of the EC, OIE or FAO

It is worth to be mention that at the opening meeting, the program of the visit has been changed. Anyhow, veterinary services were able to provide immediately with all the information required, despite the short notice.

Terms of reference

- 1. The experts should perform on the spot visits in order to gather data and be in a position to formulate recommendations on disease management.
- 2. The experts should work with the Veterinary Services in order to determine the following aspects:
 - a. If African swine fever (ASF) is occurring in domestic pigs (both in commercial sector and the so called back yard sector) and extent of the areas of occurrence.
 - b. If ASF is occurring in wild boar and geographical distribution of ASF in wild boar.
 - c. Formulate hypothesis on the drivers of ASF occurrence for domestic pigs and back yards.
- 3. Propose measures intended for the control and eradication of ASF under local conditions, in line with the OIE International Standards.
- 4. The experts should report to the Standing Group of Experts on African swine fever in the Baltics and Eastern Europe under the OIE/FAO GF-TADs and to the Veterinary Services of the country being visited. A written report should be produced for each mission.

Epidemiological background

In January 2014 ASF has been reported for the first time in Lithuania in the wild boar population. The first cases were detected almost simultaneously in the regions of Alytus/Varena and in Salcininkai. Since then, 109 cases have been reported in the wild boar: 76 cases in 2014, and 33 in 2015. In July 2014 the disease has been also reported in domestic pigs, the first outbreak was detected in a commercial pig holding located in Ignalina, a region at the border with Belarus. Afterwards, in a one-month period, 5 further outbreaks have been identified in backyard holdings. All the outbreaks were identified in three regions located in the east part of the Lithuania: Ignalina (4), Rokiskis (1), Utena (1). Last outbreak was reported on 31 of August 2015. Since then, there is no evidence of ASF in the domestic pig population. Whilst the disease is still reported in the wild boar.

The affected areas are mainly located in the south – east part of the country. In the following district municipalities: Alytus, Ignalina, Jonava, Kupiškis, Rokiškis, Šalčinikai, Švenčionis, Trakai, Varėna, Utena, Zarasai and Vilnius.

General Information

Domestic Pigs

Pig population in Lithuania (01.03.2015)

- Pig holdings: 14.541 (96.3% of which are backyards)
- Pigs: 582.090 (7,6% of which are in backyard holdings)

The Lithuanian Veterinary Authority reported that in the last year the number of backyards has strongly decreased, due to the application of biosecurity requirements.

In Lithuania pig farms are categorised into two main categories:

- 1) Backyards
- 2) Commercial farms

Keeping pigs outdoor is prohibited.

Lithuanian Authorities are currently in the process of reviewing the national legislation on pig holding registration and for backyards that are located in the areas under restriction, the new rules foresee that they can have a maximum of 5 fattening pigs, without breeders. The new legislation should enter into force on 1 November 2015.

Bio-Security

In Lithuania, minimum bio-security requirements for pig holdings were established in 2011, after the epidemic of classical swine fever in domestic pigs. Afterwards in 2013, the requirements were precautionary reinforced in Lithuania after the confirmation of ASF in Belarus. A buffer zone was established at the border with Belarus and the holdings not meeting the basic requirements were requested to slaughter pigs. The owners of these holdings have been compensated to avoid restocking for at least one year.

Wild boar

Wild boar census and hunting

The whole Country is divided into hunting clubs (HC). The president of the HC is responsible for all the activities. Each member, after an official qualification, can be delegated for the organization of one or more hunting sessions. The HC is the responsible for the hunting and for the field management of the wild boar population.

A proper wild boar census is not carried out but hunters of the HC estimate the wild boar prereproductive population size. At the beginning of each April wild boar estimates are given to the Environment Nature Protection Department at the Ministry of the Environment, which record all the data submitted by the deadline. Estimates are based on visual observations, camera trapping, track counts and encounters with animals during hunting activities. However, the hunting bag of the following hunting season is not based on the population estimates but rather on the local, actual, wild boar availability since animals can move to and from neighbouring hunting clubs. As a result, some differences could be noticed between estimated and hunted population data. Recommendations to reduce the wild boar population have been given to hunters by the Central Authority, even though a precise gradient of decreasing has not been established. Therefore, each HC decides the level of reduction to apply during the hunting season.

<u>Hunting strategy</u> applied in infected hunting club:

When an infected wild boar is detected, the hunting rules are the following:

a) hunting ban of 30 days (all species) in an area approximately of 3 km radius around the spot where the infected animal has been found;

- b) Usual hunting practices are allowed in the neighbouring areas without any specific request regarding wild boar depopulation,
- c) Weekly active search of carcasses in the 3 km radius;
- d) During the 30 days of ban a limited number of wild boars could be hunted for sampling purposes under Veterinary acceptance and supervision;
- e) After 30 days from the last case, hunting is allowed (all species) with several limitation concerning wild boar hunting;
- f) All hunted wild boars are tested (for virus and antibodies detection); carcasses are stored until negative results are communicated to the hunting club. In case of positive test all the stored carcasses are destroyed under Veterinary supervision;

Artificial and attractive feeding of wild boars

In Lithuania fencing wild boars is forbidden, however there is the tradition of feeding free ranging wild boars according to the following modalities:

Artificial feeding: it is to maintain a high density of game, in particular during winter. In fact, artificial feeding reduces natural mortality caused by winter condition. It is also considered a practice to maintain animals in the territory of the HC;

Attractive feeding: a limited quantity of food is placed close to the hunting towers to attract animals for hunting purpose;

Currently, artificial feeding is forbidden in infected areas and in areas considered at risk. Whilst, attractive feeding is permitted (100 kg/hunting tower/winter) to increase the encounter probability between the wild boar and the hunters.

Biosecurity measures during hunting

Each hunting club has a specific area in which hunted animals are dressed (dressing area) and the pit for offal storage is always present. When the pit is full, according to the Veterinary Service instructions, offal can be buried on the spot or sent to a rendering facility. The pit could be also covered by soil and a new pit is prepared.

Each hunting club has a unique point where wild boar carcasses are stored while waiting for the test results. The storage point could be close to the hunting clubhouse or in a hunter's house. Sampling is done during dressing, directly by the hunters. Hunters directly deliver samples to the district veterinary service (by the end of the day or next day in the morning). Test results are usually available in 2 days, meanwhile carcasses are stored in the freezer.

The stored carcasses can be easily traced since they are marked with the same figures of the samples they refer to. All the forms containing the relevant information (day of hunting, hunter names etc.) are kept by the President of the hunting club.

Each dressing area is equipped with disinfecting portable equipment.

Surveillance in wild boars

The surveillance strategy applied in the Country is based on both passive and active surveillance: *Passive surveillance*: is the key activity by which ASF early detection is based. All found dead wild boars (including road kills) have to be, compulsory, reported to the Competent Authorities and tested for ASF.

Active surveillance:

<u>Free areas</u>: a minimum of 59 samples for administrative unit (County) is foreseen; samples are tested for both virus and antibody detection. In proximity of wild boar infected areas the number of samples to be taken is increased due to the risk of ASF introduction; <u>Infected areas</u>: all shot animals are sampled and tested for ASF (virus and antibodies detection).

KAŠIADORYS

Local Veterinary Office

The region is located in the south part of Lithuania. Part of the territory of the region is now listed in Part I, whilst the remaining is in Part II of the Annex to CD 2015/558/EU, due to the detection of a positive wild boar in the bordering region of Jonava.

Currently in the region there are 252 pig holdings, 2 of which are commercial holdings, in total 4027 pigs are kept. Pig census is updated quarterly. The chief veterinarian reported a brisk decrease in the number of holdings/pigs, due to the application of the basic biosecurity requirements. Indeed, at the first update of the year (27 January 2015) 931 pig holdings and 6645 pigs were reported.

As regards as ASF surveillance in domestic pig, passive surveillance is enhanced given that it is considered the key activity for ASF early detection. Additionally in backyards, 59 blood samples collected in the region for the Aujeszky's disease program are checked for ASF too. Whilst commercial holdings are tested twice a year, in accordance with the national control program (FMD, CSF, ASF, SVD, AUJ). After the positive outcome in Jonava (10 December 2014), surveillance activities have been intensified and pig holdings located in the territory bordering Jonava have been checked by the official veterinarians (area of at least 3 Km radius).

The Region has a program in place to inspect pig holdings. The inspections are conducted by official veterinarians. The checking is on: registration/census, health status, biosecurity requirements. Corrective actions are modulated accordingly to the level of the irregularity detected. Backyards are checked at least once a year, commercial holding twice.

They have carried out since 2013 an intense awareness campaign and training on animal identification, biosecurity.

Wild Boar

The surface of the County is approximately 1000 km2; the size of the wild boar population is about 1400 individuals (pre-reproductive estimate at 15 April 2014), the animals are distributed in 14 hunting clubs. During the period 1st May 2014 - 1st March 2015, 1137 animals have been shot, and 284 were tested for ASF with negative result. Whilst in 2015, 83-hunted wild boar have been tested and they resulted negative for ASF. The number of sampled animals largely exceeded the foreseen sampling intensity (59 individuals). In fact, sampling has been increased as a precautionary measure due to the detection of a positive wild boar in the bordering territory of Jonava.

Passive surveillance: from 1st January 2014, 8 wild boars have been found dead: 5 were wounded during hunting, the other 3 were road killed: all resulted negative for ASF.

Commercial Holding

The Team visited a close cycle breeding holding of about 3000 pigs, which is now located in Part I of the Annex to CD 2015/558/EU. It is an organic farm in which last pigs were introduced in 2002. The Team did not enter the premise, the manager of the holding and the farm veterinarian joined the Team outside the gate of the holding, where the interview was conducted.

The Team was positively impressed by the infrastructure, the production parameters, the management system and also by the proactive attitude of the manager of the holding. According to the information provided by the veterinary service, the holding has always had good biosecurity system in place. However, after the occurrence of ASF in the neighboring areas, the manager has immediately tried to strengthen farm bio-security, buying lands around the farm to be more isolated, double fencing the part of the property where the inner fence was too close to the buildings of the holding. Part of the fence has been also electrified, given the proximity to the forest.

The manager is well aware that personnel is the critical factor to maintain a bio-security system in place and he is using the proper tools to motivate people.

As an example, he knows that people from the area like to produce pork products from their own pigs. However, given the farm bio-security rules workers cannot have pigs at home. Hence, every year he gives two pigs for each worker as an incentive to motivate personnel. In this manner, they can produce their own products at home, using pigs from the holding.

Hunting Ground

The team visited the Hunting Club named "Sakalas" which has a surface of about 11 km2. From 1st January 2015 19 wild boars have been shot, all the animals have been tested for ASF and resulted negative. The Team visited the dressing area consisting of a separated building equipped with the main dressing facilities. A pit for offal disposal is available nearby the dressing building. The pit collects also the liquid from the dressing area. Equipment for disinfection and disinfectants were available on the spot.

Samples collection and dispatch, storage of wild boar carcasses were in compliance with the legislation.

> Conclusions

The Local Veterinary Services are well equipped and resulted well connected with the Central Authority. Furthermore, there is a good exchange of information with the Hunter Association and the Farmers.

In general terms, the Team was well impressed by the level of organization of the Local Veterinary Services.

Recommendations

- Hunting bag data should be considered as the most accurate indicator of the actual wild boar population size.

- In the hunting ground, the entrance of the dressing areas should be provided with appropriate means for cleaning and disinfection without neglecting the cleaning and disinfection procedures already in place for the vehicles.

Good Practices

- The Team was positively impressed by the proactive attitude of the manager of the commercial holding. Furthermore, he is using proper tools to incentive personnel to maintain a high level of biosecurity.
- Veterinary Service reacted promptly to the presence of ASF in the neighboring region of Jonava. Surveillance in domestic pigs and in wild boar was increased following the positive results in Jonava.

ALYTUS

The region belongs to the south part of Lithuania and it is currently listed in part II of the Annex to CD 2015/558/EU, due to the presence of ASF in the wild boar population. Alytus is one of the two regions in which ASF was first identified in 2014. The disease is still present in the area, in fact 18 cases were reported in wild boar in 2014 and 5 in 2015. The parish of Alové with 18 cases resulted the most affected.

The region is divided into 11 parishes and currently in 7 there are no pigs. These last parishes are located in the buffer zone, a risk area established in February 2014 after the detection of the ASF cases in the wild boar. By mid-April 2014, pigs from the 7 parishes were slaughtered, as precautionary measure to avoid the possible spread of ASF. Pig owners of these holdings have been compensated to avoid restocking for at least one year.

At the last census (30 March 2015):

- 543 pig holdings (1 of which commercial)
- 2617 pigs

These pigs belong to the holdings of the 4 above mentioned parishes. Census for domestic pigs is updated quarterly.

Surveillance in domestic pigs:

- Passive surveillance
- Backyard pigs are checked at slaughtering and tested for ASF
- Commercial holdings (1): is visited and tested twice a year

Currently in the region, there is only one commercial holding and it is the one visited by the Team. They have an inspection plan in place to verify how biosecurity is applied in the holdings.

Markets have been closed, they intensified control on pig products and feed, an incineration facility has been appointed and in each parish, areas to bury wild boar have been designated. Since 2013 awareness campaign (TV, Radio) and trainings activities have been carried out in the region. Training activities have been addressed to hunters, private vets and to pig keepers (biosecurity).

Commercial Holding

The Team visited a close cycle breeding holding of about 1000 pigs, located in the parish of Alytus. Last live pigs were introduced in the holding in 2012. Also in this occasion the Team did not enter the premise, the owner and the farm vet joined the Team outside the gate of the holding. The holding is well conducted and it has a good bio-security system in place. The farm has a direct contract with an authorized veterinarian in order to ensure a strict control over the health status of the farm.

Also in this occasion the Team was well impressed by the attitude of the owner, she understood the risk posed by the presence of ASF in the neighboring area, she follows the advices of veterinary services and tries to improve the organization/management of the holding, including motivation and incentives to personnel.

Despite the management measures in place, the owner was aware that the use of external vehicles to transport pigs to the slaughterhouse was a possible risk factor for her holding. At the time of the visit she just finished to build a small slaughterhouse into her property, to be used only for the pigs of the holding. Her objectives were to be more competitive on the market and to avoid potential risks of disease introduction into the holding.

Hunting Ground "Kalesnykai"

The forested area of Alytus is about 6.000 hectares and it is the area in which the first ASF case has been detected in Lithuania on 24 of January 2014. After the first detection, rules on hygiene measures for persons coming into contact with wild boars have been implemented together with information campaigns addressed to hunters, veterinary practitioners and pig holders.

At the date of 15 April 2013, 810 wild boars were estimated in the area and during the 2014 hunting season 793 wild boars have been hunted. It must be underlined that the number of wild boar provided by 15 April is the pre-reproductive estimate. Therefore, it does not take into account the new born recruitment.

At HC level, the hunting intensity was very variable and it was sometime largely exceeding the population estimates.

Passive surveillance

During 2014 40 dead wild boars from 8 Hunting Clubs have been found dead and tested, 12 were positive for ASF. In 2015, dead wild boars were found in 2 hunting clubs, 5 out of 6 resulted positive for ASF.

Active Surveillance

In 2014, 625 wild boars were checked and they were negative (all hunted individuals); in 2015, 62 hunted animals have been checked, 1 of them was seropositive.

The team visited the club house of the "Kalesnykai" hunting club, which is located in a 24 km² pinewood forest in the vicinity of Alytus. During the past hunting season, 16 wild boars have been shot and tested, all resulted negatives. They consider that currently there are 10-12 wild boar in the area which would result in an expected post-reproductive population of about 20-24 animals. The dressing area is located few meters away from the clubhouse and it consists of a simple roof in a plain air, unpaved, not supplied with tap water. The perimeter of the area is surrounded by a small ditch which is not connected to any container. The pit for offal collection was located under the roof.

Samples collection and dispatch, storage of wild boar carcasses were in compliance with the legislation.

Recommendations

- Hunting bag data should be considered as the most accurate indicator of the actual population size.
- Taking into account that 1) it is an infected area, 2) the dressing area was unpaved 3) the lack of water supply system, it would be recommended to fence the perimeter of the dressing area itself.
- In the hunting ground, the entrance of the dressing areas should be provided with appropriate means for cleaning and disinfection without neglecting the cleaning and disinfection procedures already in place for the vehicles.

Good Practices

Continue with the 30-day suspension of hunting of all the species, in combination with the active search of dead animals in the surrounding area of at least 28 km2 (2800 hectares) which corresponds to a surface of 3 Km radius. It is considered a good practice to contain the spread of the infection.

IGNALINA

The region is located in the east part of Lithuania, at the border with Belarus. The presence of ASF in the region has been first recognized in a commercial pig holding (24 July 2014), then the disease has been reported in wild boar (8 August 2014). However, given the characteristics of the carcass, most probably the wild boar found positive died at least 2 weeks before being discovered. The second positive wild boar was found on 1 of September 2014, decomposed as well.

At the last census 691 pig holdings were present in Ignalina, 690 backyards and 1 commercial farm. However, since 15 December 2014 all the holdings are empty. In fact, after the eradication of the outbreaks, all the pigs of the region have been checked and slaughtered as precautionary measure, and pig farmers cannot restock holdings. Currently, there is a control plan in place to verify if the holdings continue to be empty.

ASF in DOMESTIC PIGS

In the period from 24 July 2014 to 1 September 2014, 4 ASF outbreaks were detected in Ignalina. The first one in a commercial holding, the others in backyards.

The first outbreaks has been reported on 24 July 2014, in a commercial farm of 19.137 pigs, in one week all the animals were stamped out. The source of the infection remain undetected, even though the police is still investigating to determine the possible origin of the infection.

Control activities in the area:

- Protection Zone (3 Km). Census: 19 holdings, 62 pigs. All the animals were checked, tested and slaughtered: all resulted negative for ASF.
- Surveillance Zone (10 Km). Census: 55 holdings, 150 pigs. All the animals were checked and tested and resulted negative for ASF.
- During the census 2 new holdings were identified by the Official Veterinarian, they were controlled and resulted negative for ASF.
- The second outbreak was identified on 12 August 2014 in a backyard holding (1 pig). The private veterinarian informed the Official Vets about a dead pig, the animal resulted positive for ASF. The possible source of infection could be the owner, a tractor driver that in those days worked in the fields.

Control activities in the area:

- Protection Zone (3 Km). Census: 2 holdings, 4 pigs. The animals were checked, tested and slaughtered. All resulted negative for ASF.
- Surveillance Zone (10 Km). Census: 30 holdings, 100 pigs. The animals were checked and tested and resulted negative for ASF.
- The third outbreak was detected on 13 August 2014 in a backyard holding (2 pigs). The private veterinarian informed the official vets about a sick pig, the animals resulted positive for ASF. Around the house, damages were found due to the presence of wild boar. Control activities in the area:
 - Protection Zone (3 Km). Census: 14 holdings, 45 pigs. The animals were checked, tested and slaughtered. All resulted negative for ASF.
 - Surveillance Zone (10 Km). Census: 50 holdings, 111 pigs. The animals were checked and tested and resulted negative for ASF.
- The forth outbreak was reported on 1 September 2014 in a backyard holding (4 pigs). The private veterinarian informed the vet services of the presence of sick animals. Pigs were checked and tested, they resulted positive for ASF. The holding is very close to the border with Belarus (about 1.5 Km) and in the area the presence of wild boar has been reported. Three days after the detection of the outbreak 1 wild boar was found positive in the surveillance zone.

Control activities in the area:

- Protection Zone (3 Km). Census: 3 holdings, 9 pigs. All tested and slaughtered, results were negative.
- Surveillance Zone (10 Km). Census: 4 holdings, 7 pigs. All tested and slaughtered, results were negative.

All the outbreaks detected in backyards were "mixed holdings", meaning that animals of other domestic species were present on the farm.

On 6 August 2014 in the region of Utena, an outbreak was detected in a backyard (2 pigs) located close to the border with Ignalina. The competent Veterinary Service immediately informed the colleagues of Ignalina of the presence of the disease in the neighboring area.

For the outbreak of Utena, the owner was the possible source of infection. Indeed, he was a hunter used to hunt in a hunting ground close to the border with Belarus.

Surveillance in wild boar

In Ignalina there are 14 hunting clubs, of about 100 Km² each.

The estimated wild boar population is about 1100 heads (the estimation refers to the official report issued on 15 April 2013) of which 917 hunted (15 April 2014). Until 17 September 2014 all the wild boar found sick/dead had to be checked and tested for ASF for a total of 12 individuals (before the detection of the disease). Additionally a minimum of 59 wild boar hunted/year/Hunting club had to be tested for ASF, as well. The rules changed on 18 September 2014. Since then all hunted wild boar and the ones found dead are checked and tested for ASF, for virus and antibodies detection.

Results of the activities carried out:

- In the period from 1 January 2014 to 17 September 2014, 323 wild boar were tested for ASF:
 - 309 hunted
 - 14 dead (2 of which resulted positive for ASF)
- In the period from 18 September 2014 to 31 January 2014, 74 wild boar were tested for ASF:
 - 63 hunted
 - 11 dead (9 resulted positive for ASF)

Of the 9 positive animals, 6 were found clustered at the border with Belarus (from 28 November to 18 December 2014).

- > In the period from 1st January to 23rd March 2015, 59 wild boar have been tested:
 - 55 hunted
 - 4 dead (2 of which resulted positive for ASF)

Last positive wild boar was detected on 23 March 2015.

Since 2013 awareness campaigns are ongoing in the area. The Local Veterinary Services reported a good cooperation with border inspection service; they resulted very helpful in reporting cases and damages produced by wild boar.

Commercial Holding

As already reported, in the region pig holdings are empty. However, the Team visited from the outside the premise in which the first ASF outbreak was detected. Currently, they have finished carrying out the cleaning and disinfection procedures and the buildings are empty.

Hunting Ground

The team visited the Hunting club named "Miškininkas" extended on a 150 km2. Due to the hunting management the wild boar estimates decreased of about 2/3 during the past two years (111 to 30 individual). During the period January-September 43 animals out of 64 were sampled and tested negatives. After 18 September 2014 all shot animals are tested.

The dressing area consisted of a separated building equipped with the usual dressing tools, the pit for the collection of offal is fenced, locked and in the close vicinity from the dressing building. When the pit reaches its capacity it will be buries and a new one is dig.

Samples collection and dispatch, storage of wild boar carcasses were in compliance with the legislation.

> Conclusions

The Team was positively impressed by the organization and the activities carried out by the Local Veterinary Service. They are well organized, they were able to provide immediately with all the detailed information required. They are well connected with the Central Authority and there is a good exchange of information with colleague, border inspection service and hunter association.

Recommendations

In the hunting ground, the entrance of the dressing areas should be provided with appropriate means for cleaning and disinfection without neglecting the cleaning and disinfection procedures already in place for the vehicles.

Good Practices

- Continue with the 30-day suspension of hunting of all the species, in combination with the active search of dead animals in the surrounding area of at least 28 km2 (2800 hectares) which corresponds to a surface of 3 Km radius. It is considered a good practice to contain the spread of the infection.
- Wild boar passive surveillance: Before the detection of the virus, the intensity of the passive surveillance in place fully fit the requested standard (1% of the wild boar estimated population) for the early detection of the virus.

Final Remark

The working atmosphere during the mission was very good. The colleagues from Lithuania gave all their support and assistance to facilitate the mission.