

GF-TADs

GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES



Food and Agriculture
Organization of the
United Nations



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 Poland REPORT¹

❖ **Period:** 12 – 16 October 2015.

❖ **SGE Experts:** Silvia Bellini (IZSLER, Italy) Team Leader, Konstantine Gruzdev (FGBI ARRIAH, Russia) and Sergei Khomenko (FAO).

❖ **Places visited during the mission:**

- a) Warsaw: Central Veterinary Office: opening and closing meetings with the Central Veterinary Authority.
- b) Bialystok county – which belongs to Podlaskie region and it is located in the North East part of Poland, at the border with Belarus. The area is currently listed in the Annex to CD 2014/709, due to the presence of ASF.

In the district the Team visited:

- District veterinary service: to discuss, at local level, the measure in place and the activities carried out against African swine fever (ASF).
 - A commercial pig holding and a backyard to discuss the biosecurity in place.
 - Forest district/hunting association and hunting ground: to discuss the measure adopted to control the presence of the disease in the wild boar population.
- c) Hajnówka county - which is located in the south-eastern part of Podlaskie region. Part of the county is covered by the Białowieża Forest - a forest complex located between Poland and Belarus. In the Białowieża Forest lives the largest population of free bison in the world and it is a protected area.

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

In the district, the Team visited:

- The State Forest Office for a meeting with the local veterinary service, the forestry officials and representatives of the hunting association. The objective of the visit was to discuss the control measures implemented in the area against ASF.

❖ 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 Poland, the first case of ASF in wild boar was confirmed on 17 February 2014, nearby the village of Grzybowszczyzna, in the region of Podlaskie. The finding place is about 900 mt distant from the border with Belarus. Based on the characteristics of the ASF virus, the introduction of ASF into Poland was most probably from Belarus. Indeed, the virus shows high homology to the virus strains detected in Belarus in 2013.

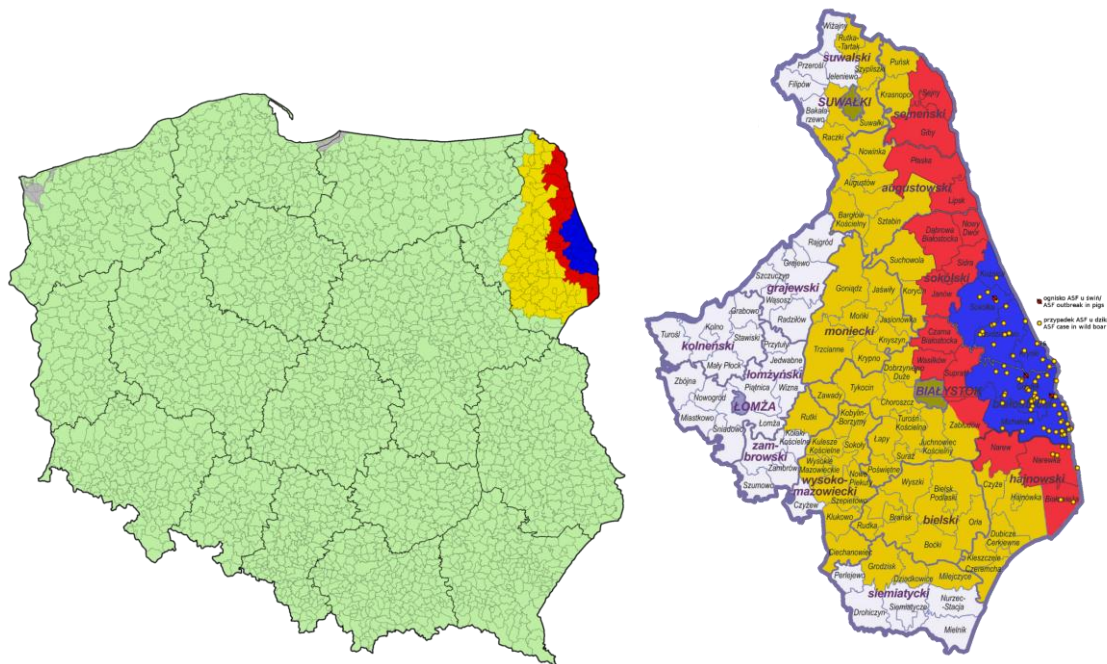
Since the first occurrence, 76 ASF cases have been detected in the wild boar population in Poland, 30 cases in 2014 and 46 in 2015, last one was confirmed on 26 August 2015. Worth to consider that a significant number of them, 29 out of 76 (38%) is located within 5 km from the border with Belarus. In July 2014, ASF was also detected in domestic pigs. In total, 3 outbreaks have been identified in backyards, all the reports were in the region of Podlaskie, within the restricted area.

The rate of ASF spread in wild boar remains to be rather low (e.g. 25 km in nearly 2 year or 1.2 km a month) and all detected cases (76: 30 in 2014 and 46 in 2015) cluster along the border with Belarus. In 2015 there has been a slight southwards expansion of ASF cases in wild boar (Hajnovka district) towards Belovezhska Pushcha Forest. The reasons for this spread are unclear. Since epidemiological situation across the border in Belarus is not reported at the moment it is hard to understand if disease moves within Poland or it is introduced anew from adjacent areas of Belarus.

After 1 year and 9 months from its first identification in Poland, ASF has been detected in 8 municipalities which belong to 3 districts (Białostocki, Sokólski, Hajnowski) of the Podlaskie Region. The area is currently under restriction and based on the risk, the territories are listed in part I, II and III of the Annex to CD 2014/709/EU.

Based on the information available, it appears that ASF in Poland remained rather confined in the original infected area and that locally, the disease is spreading slowly. This could be explained by: 1) the limited circulation of ASFV in the wild boar population (info supported by the surveillance data, 2) low wild boar and domestic pig population densities in the affected area, 3) low wild boar population density in the surrounding territories, 4) high rate of detection/removal of wild boar carcasses in the area.

Figure 1 PL: ASF epidemiological situation and territories under restriction CD 2014/709/EU



General Information

Domestic Pigs

Pig population in Poland (30.06.2015)

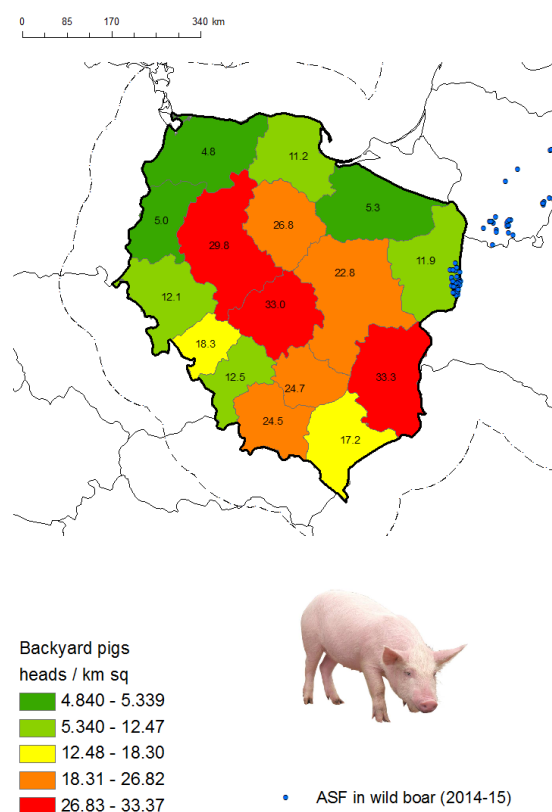
- Pig holdings: 254.284 (52.% of which are holdings from 1 to 10 pigs)
- Pigs: 16.011.420 (3,6% of which are in holdings from 1 to 10 pigs)

Pig population in Podlaskie Region (30.06.2015)

- Pig holdings: 8.904 (63.% of which are holdings from 1 to 10 pigs)
- Pigs: 471.908 (5 % of which are in holdings from 1 to 10 pigs)

The Polish Veterinary Authority reported that in the last year in the area under restriction the number of backyards has decreased, due to the enforcement of the biosecurity requirements that were made compulsory also for backyard holdings. Indeed, farmers that could not meet the standards required ceased their pig farming activity.

Figure 2: Poland - backyard distribution at regional level



Bio-Security

The Polish Veterinary Authority has adopted a national biosecurity program. Its implementation started in May 2015 and the period of implementation will be 2015-2018. Priority has been given to the holdings located in the areas at higher risk for the spread of ASF (1800 holdings). The program foresees that either pig farmers comply with the required measures or they have to cease their pig farming activity. If a holding does not comply with the required standards, an administrative procedure is adopted to kill/slaughter the pigs of the holding with full compensation of the commercial value of the animals. The owner is also required not to restock until 2018.

In order to assess the level of biosecurity implemented in the area at higher risk for ASF, the Team visited two pig holdings of the District of Bialystok.

– Commercial Holding

The Team visited a small open cycle breeding holding which is currently under restriction given that the territory is listed in the Annex to CD 2014/709/EU.

The Team did not enter the premise; the owner joined the Team outside the gate of the holding, where the interview was conducted.

The holding is of about 160 pigs. It is the biggest holding remained in the District and it is commercially active on the local market. Two boars are present and breeding is carried out through natural mating. No animal, of other production species, is present in the holding.

The owner is directly managing farm activities and the wife is helping him in the daily works. Fields around the holding are owned by the property and they are used to produce feed for pigs.

At the time of the visit, the property had just finished to accomplish the necessary biosecurity requirements that are required by the national biosecurity program for the holdings of the area.

The owner is informed about the ASF epidemiological situation in the area and he is aware of the risk posed by the presence of the disease in the neighboring area.

– Backyard Holding

The Team visited a backyard holding currently under restriction, given that the territory is listed in the Annex to CD 2014/709/EU.

Also at this occasion, the Team did not enter the premise, the owner joined the Team at the entrance of the property, where the interview was conducted.

In the holding 7 pigs are present, the meat from the animals is used for the needs of the family. The owner is directly taking care of the animals with the support of the wife. Feed for the animals is from their own fields. Basic biosecurity measures are applied in the backyard. The owner is informed about the ASF epidemiological situation in the area and he is aware of the risk posed by the presence of the disease in the neighboring area

ASF IN DOMESTIC PIGS

Three ASF outbreaks were detected in domestic pigs in Poland. Two of them occurred in 2014, the other in 2015. All the events were in backyard holdings of the Region of Podlaskie, in territories already under restriction and listed in the annex to CD 2014/709/EU.

The first outbreak was confirmed on 23 July 2014 in a holding of 5 pigs of the village of Zielona (Białystok District); the place is approximately 2,5 Km distant from the border with Belarus. The suspicion of ASF was raised after a post mortem examination of a recently dead pig. Samples were collected for laboratory testing and they resulted virologically positive to ASF.

The second outbreak occurred on 8 August 2014 in a small backyard with 1 pig in the village of Józefów (Białystok District). The suspect was raised after the clinical examination and subsequent post mortem examination of the only pig of the holding. Samples were collected and resulted virologically positive for ASF.

In both cases, the private veterinarians informed the local veterinary service of the occurrence of the disease. So, the first 2 outbreaks were detected by passive surveillance, at an early stage of infection.

The 3rd outbreak was confirmed on January 31 2015 in a farm of 7 pigs. The outbreak was detected in the municipality of Sokółka (Sokólski District). Two pigs from the herds were tested before slaughtering for-own consumption (accordingly to the national program) and resulted virologically positive for ASF. After the positive outcome, the remaining pigs were checked, they were still clinically healthy but 3 of them were already positive at virological testing.

The epidemiological investigations were conducted in the outbreaks but failed in detecting with certainty the origin of the infection. However, the veterinary authority reported that the introduction of the virus was most probably related to human factor.

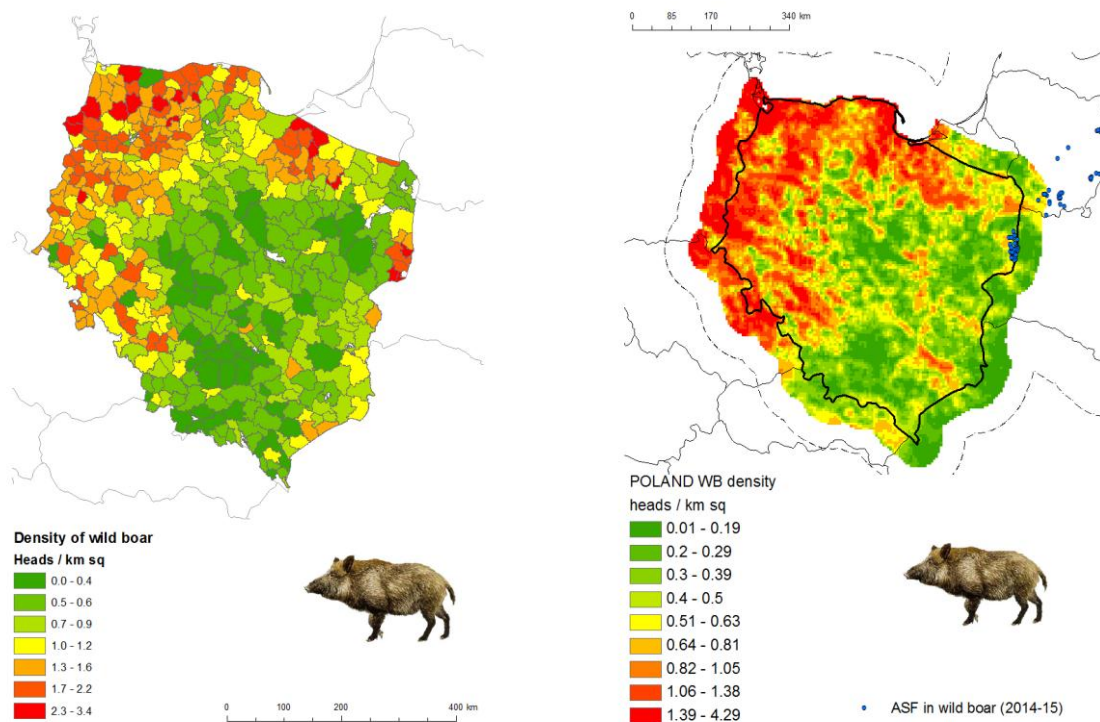
Conclusions

ASF infected farms were early detected in Poland by means of active and passive surveillance and appropriate measures were taken, avoiding further spread of the disease. In one case, the disease has been detected before the manifestation of clinical signs. The disease in pigs remained confined in the already existing restricted area. After the eradication of the outbreaks, surveillance activities have been carried in the surveillance and protection zones and no further outbreak was detected. Active surveillance is still ongoing in the area and currently there is no evidence of ASF in domestic pigs.

ASF in WILD BOAR

The wild boar population in Poland is currently (2015) estimated at 284,6 thousand. About 242 thousand animals (85 % of the spring estimate) are hunted every year. Hunting bag is lowest in the currently ASF affected Podlaskie Region (38%) and highest in Opolskie Region (100%). Average population density across the country is around 0.7 head /km sq, but there is a SE to NW density increase gradient (Fig. 3): from 0.1-0.2 to as many as 3-4 head / km sq (in the NW Poland). The currently affected parts of Podlaskie Region is characterized by relatively high population density (Fig. 3), as compared to the neighboring areas, but overall it is an area with relatively low numbers of wild boar. In the last years Poland has been reporting a continuous slight increase in wild boar population (from 247 to 285 thousand in 2011 to 2014 respectively), which is well documented by a country-wide standardized wild boar census methodology based on sample counts of animal tracks.

Figure 3: Left: wild boar population density as reported at the level of forestry districts; Right: wild boar density as predicted by the model developed by FAO.



Wild boar population in the restricted areas of Podlaskie Region is estimated at 9500 animals (March 2015). There are 1700 heads in the Part III, 2800 and 5000 in the parts II and III respectively. These numbers are 25 % lower than previous year estimate, which is due to increased hunting bag and can possibly be explained by increased mortality from ASF. In those areas under restriction special procedures in case of finding wild boar carcass/detection of shot wild boar with ASF were developed. Population management is aimed at a steady decrease of number of WB in the affected areas (no depopulation). Active and passive surveillance for ASF is performed systematically. The types of hunts that can be performed in part II and III area were defined, which exclude much disturbance and could trigger increased in wild boar home ranges. Supplementary feeding of the WB in part II and III area was banned. Special guidelines on biosecurity measures for hunters have been developed jointly by hunters and veterinary services and distributed to the hunting community. Some ASF targeted research is planned in the area in 2015-2016 along with evaluation effectiveness of current measures and if needed development of adjusted plans for 2016/17. Overall, the ASF control strategy is based on the knowledge that specific behavior of wild boar makes long-distance spread of ASF highly unlikely (mostly sedentary life and movements within the range of 1-2 km; long distance movements by small percentage (<10%) of animals; high virulence of ASFV to WB → low probability that sick animal undertakes long distance movement. A good surveillance is in place demonstrates only a very limited virus circulation (large number of wild boar are tested, including a large number of dead wild boar from the affected area). Further to this there is low population density of WB in the surrounding regions and it is expected that spread and sustained transmission in WB in those neighboring areas are limited. Because of the low density of domestic pigs in the area the disease has a low probability to spill over to domestic pigs from wild boar population.

Measures implemented in connection with detection of ASF in wild boar

- Detection of ASF in dead wild boar:
 - destruction/burial of the carcass
 - disinfection of the place of finding / burial
- Detection of ASF in shot wild boar:
 - disinfection of the cold store
 - destruction of the carcasses from the cold store
 - All wild boar shot in the areas under various restrictions must be tested for ASF (for that purpose they are moved to a cold store after the hunt)
 - Epidemiological inquiry (special document) for all shot/dead wild boar
 - Establishment/enlargement of „infected area“
- Proper notification to the EC and OIE

Veterinary Inspection conducts epizootic investigation in the case of each shot, dead or sick wild boar, as well as dead bodies of wild boar undergoing autolysis. The investigation includes filling on a document of epizootic investigation (Appendix no. 2 to the plan), which provides information about:

- geographical data of the area, where the animal was shot or found dead,
- date when this animal was shot, found dead or sick,
- data of the person who found the dead or shot wild boar,
- age and sex of the wild boar,
- if the animal was shot – symptoms observed before shooting,
- if the animal was found dead or sick - information about the condition of the body,
- laboratory test results.

Table 1. Monthly detections of ASF in wild boar in Białostocki, Sokólski and Hajnowski districts in 2015

MONT H	pow. białostoc ki	pow. sokóls ki	pow. hajnows ki	TOT AL	MONT H	pow. białostoc ki	pow. sokóls ki	pow. hajnows ki	TOT AL
1	1	-	-	1	7	2	2	2	6
2	5	2	-	7	8		1	2	3
3	5	1	1	7	9	-	-	-	-
4	9	4	-	13	10				
5	3	2	-	5	11				
6	2		2	4	12				
					TOTAL	27	12	7	46

Visits to the Forestry Departments and hunting grounds revealed a very high level of awareness as for ASF and willingness of wildlife management authorities and hunters to collaborate on the subject. In Hajnowski districts (1600 km sq) there are 12 hunting grounds (5 managed by the forestry authority, 7 – by the hunting clubs) there are a total of 15 cold chambers (5 owned by the forestry authority and 10 more by the hunting clubs). All the shot animals are delivered to the cold chambers and dressed there. Carcasses and off-fall (placed in a plastic bag) are both identified with a plastic tag with unique ID number. Those, along with the sampling kits are provided to hunters by the veterinary inspectorate. In case of at least one positive detection all carcasses in the chamber are destroyed by the rendering company together with off-fall from all shot animals (this is done regularly). Irrespective of the results, carcasses of wild boar shot in the Part III & II are never moved outside of them (consumed locally or rendered). Only animals shot in the surveillance zone that tested negative for ASF can be moved to other parts of Poland.

During the visit to the hunting grounds it was found that little supplementary feeding was normally (before the ban) provided to wild boar in this area. Instead, forestry management and hunters have to distract wild boar from agricultural fields in summer, for which they “seed” small amounts of maize grains on the forest clearings and in that way keep animals digging and looking for them for hours. Interestingly, local hunters estimated that infected carcass detection and removal rate in this part of Poland is very high (90 %), which can be attributed to the forest type, human population density and popularity of the area for tourists, mushroom and berries collectors etc. Such a high carcass detection rate can, to some extent, explain why disease spread rate in wild boar in this part of Poland remains to be the lowest in the region. This observation is very important as it suggests that high-infected carcass removal rates have a potential as a disease management tool.

CONCLUSIONS

- The Team was positively impressed by the competence and the level of organization of the Polish Veterinary Services. They are efficient, proactive and they have been able to establish a good level of collaboration with farmers, forestry officials and hunters. Activities are well documented and properly recorded.

- Polish Veterinary Services reacted rapidly to the presence of ASF in the neighboring countries. An assessment of the risk was performed and preventive measures were adopted to prevent the introduction of the disease into Poland. Surveillance activities for ASF have been undertaken since 2011.
- The surveillance system currently in place (for domestic pigs and wild boar) is well conducted and resulted efficient in early detecting the presence of ASF in the backyard sector and to prevent its further spread in the pig farming system.
- In the holdings visited by the Team, basic bio-security measures are applied. The measures can be considered appropriate for the type of holdings and for the epidemiological situation. In both cases was well evident the good level of interaction with the local veterinary service.
- The wild boar management system in place is well developed. Furthermore, there is a good understanding of the forestry and of the hunters of the importance of the issues.
- Wild boar active and passive surveillance proved to be efficient in monitoring the epidemiological situation in the wild boar.
- Wild boar sampling, as well as carcasses and offal management is well organized and efficient.

Good practices

- At each level of the Veterinary Service there is a group of people dedicated to the activities linked to the control of ASF.
- Guidelines concerning biosecurity practices for hunters have been produced to minimize the risk of ASF spread in the at risk areas.
- High carcass detection and removal rate in the affected area.

Final Remark

The working atmosphere during the mission was very positive. The colleagues from Poland were very cooperative and they gave support and assistance to facilitate the mission.