



Sustained technical assistance mission (STM) on African Swine Fever in Greece

ASF surveillance in wild boar population in different risk areas (early detection in free areas; monitoring in infected areas; sampling, active search of carcasses using modern technologies and dogs)

STM Experts

12 March 2024, Greece, Serres

ASF Guidelines



I. Main EU legislation relates to ASF



II. Kept porcine animals



III. Wild porcine animals



IV. Principles and criteria for geographically defining ASF regionalisation in the EU

ANNEXES

Annexes...

ASF Guidelines

- ✓ **SANCO/7138/2013 - Guidelines on surveillance** and control of African swine fever in feral pigs and preventive measures for pig holdings
- ✓ **SANCO/7112/2015** – Principles and criteria for geographically defining ASF regionalisation
- ✓ **SANCO/7113/2015** – ASF Strategy for the EU



- ✓ Commission Notice on the guidelines on the prevention, control and eradication of African swine fever in the Union (ASF guidelines).
- ✓ The ASF guidelines provide guidance to Member States and/or stakeholders on available tools for the:
 - ✓ prevention,
 - ✓ Control
 - ✓ and eradication of ASF in response to the epidemiological situation of that disease in the EU and globally

C/2023/1504

18.12.2023

COMMISSION NOTICE

on the guidelines on the prevention, control and eradication of African swine fever in the Union ('ASF guidelines')

(C/2023/1504)

(Text with EEA relevance)

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Wild boar - surveillance

- ✓ **Wildlife surveillance mostly linked to hunting;**
- ✓ **Sampling rather irregular;**
- ✓ **Hunting seasonally limited;**
- ✓ **Rarely adequate number of samples collected;**
- ✓ **Mostly serological tests performed – only retrospective analysis.**

WB Surveillance in LITHUANIA

- Hunters should collaborate with the competent authority in finding and reporting wild boar carcasses.
- Testing of all wild boar carcasses.
- All hunted animals and found carcasses need to be tested by using qRT-PCR.
- According to the 10-year experience of Lithuania and other infected countries, SEROLOGY is not suitable for early detection.



WB Surveillance

Hunters are getting more and more important...

Each hunter in an area at risk or in an infected area must be well trained:

- *to recognize the clinical symptoms of ASF in wild boar (even hunted)...*
- *to know what kind of samples to take;*
- *how to take samples;*
- *to notify the suspicion (to whom, when?);*
- *in disposal of carcasses (how?);*
- **basic biosecurity requirements;**
- **hunting hygiene.**



WB Surveillance

Cooperation between the competent authority and hunters is crucial.

- Hunters are our eyes and ears;
- The involvement of hunters and their willingness to cooperate is a success factor in ASF management;
- Hunters are the main players in the implementation of measures in practice;
- Well-trained hunters can work as an early detection system.

Early detection in Member States free from ASF

- ✓ *The main measures in countries free from ASF should be aiming for **best prevention practice, early detection** and to **preparedness** for the possible occurrence of ASF!*
- ✓ *Early detection of ASF in wild boar populations is fundamentally important for its control.*
- ✓ *Particular attention should be given to the management of wild boar populations...*



Sampling and testing

Sampling and testing of wild porcine animals found dead should be based on:

- the risk assessment carried out by the competent authority; and
- passive surveillance.

Areas not affected by the disease – focusing on best prevention practices, early detection and preparedness for the possible occurrence of ASF

Passive surveillance (also when supported by an active search of dead wild porcine animals) **is the most effective tool to detect ASF** and monitor its spread.



Sampling and testing

The following should be taken into account:

- PCR (virus detection) should be the test of choice in areas where ASF is not present and in the ASF restricted zones;
- a positive serological test alone may not indicate the virus circulation;
- ab detection, should not be used for the early detection of ASFV but rather as a tool (as a complementary test to PCR test) to better understand the evolution of ASF epidemiology in certain areas and/or specific situations such as
 - (i) testing of wild porcine animals in the restricted zone I (bordering infected areas); a seropositive animal could be indicative of an evolving disease situation such as the spread of ASFV outside restricted zones II or III;
 - (ii) areas where the disease has been present for long periods.

Surveillance in areas where ASF is not present and that do not border the restricted zones

Surveillance: sampling should be based on passive surveillance; found carcasses and sick wild porcine animals should be tested for ASF by PCR



Surveillance in areas where ASF is not present (including restricted zone I), bordering restricted zones

Where relevant, active patrolling to find carcasses (preferably by trained staff) should be carried out in order to reinforce passive surveillance and aiming to detect ASF as soon as possible.

All found dead wild porcine animals should be disposed of, as foreseen by the competent authority.

Sampling should be based on a risk assessment and on an enhanced passive surveillance; found carcasses and sick wild porcine animals should be tested for ASF by using PCR, where relevant.

Surveillance that could be taken in newly infected zones to eradicate ASF

Passive surveillance should be used as a basis to define the epidemic phase of the disease

Sampling should be based on enhanced passive surveillance: all found carcasses and sick wild porcine animals should be tested for ASF using PCR.

In order to reinforce passive surveillance, active patrolling to find carcasses by using trained staff, dogs or drones should be carried out.

In addition to testing of all found dead wild porcine animals for ASFV, also hunted or culled wild porcine animals should be tested for ASFV using PCR

Surveillance that could be taken in wide infected zones to control ASF

Sampling should be based on enhanced passive surveillance:

- all found carcasses and sick wild porcine animals should be tested for ASF using PCR
- hunted or culled wild porcine animals should be tested following the instructions of the competent authority based on the specific epidemiological situation and taking account of relevant EU legislation

Active patrolling by trained staff to find carcasses in order to reinforce passive surveillance should be carried out



Passive surveillance, including the search of dead wild porcine animals and handling of carcasses

Particular attention should be given to the finding of the carcasses in newly infected zones and in the proximity of those zones

Passive surveillance (aiming also to identify and locate the oldest carcasses) and testing of all carcasses should be enhanced, in particular in newly infected zones and in a proximity of those zones.

Usually, carcasses, which are found first, do not necessarily represent the first cases of the disease in that area.

Main measures for ASF prevention and early detection in Member States free from ASF

Should be effectively minimized through preventive long-term actions aimed at reducing wild boar population density in ASF-free areas;

This long-term management requires coordination with other stakeholders such as forestry management bodies and hunters and is essential for both prevention and early detection of ASF;

Cooperation on the management of wild boar from both the agricultural and environmental sides is essential.

Early detection in Member States free from ASF

Hunters should be aware of the risks related to ASF and should be trained to:

- *actively contribute to passive surveillance,*
- *active dissemination of information,*
- *adapt their practices to the possible disease situation,*
- *enforce wild boar management practices and biosecurity measures aimed at minimising the risk of the disease entering into new areas.*

Active search of carcasses using modern technologies and dogs

The rapid detection of carcasses is critical to the successful containment of emerging wildlife diseases such as ASF.

A drone equipped with a thermal camera can detect carcasses and accurately measure carcass temperatures.



European
Commission

Carcass searches with drones, example by Germany

Germany (Gunda Lubek)



Carcass searches with drones, example by Germany

- area performance: 300-1000 hectare/day
→ significantly higher area performance than with dogs
- well suited for areas difficult to access (e.g. reed) / areas with a ban on entering / open areas
- additionally assessment of wild boar population - for the planning of hunts
- 5 teams per operation day available



Germany (Gunda Lubek)



Carcass searches with dogs, example by Germany

- area performance: 50-75 hectare/day/dog team
- usually two teams work together (2 dogs + 2 dog handlers), all teams are equipped with GPS
- i.e. Saxony: 70 dog teams bound by contract (one team from Austria); BB trained 101 dog teams; 65 dog teams are active right now
- dog team operations are coordinated centrally according to priority
- dogs were trained and qualified in 30-day-courses
- Western ASF outbreak line is searched regularly and intensively



[Germany \(Gunda Lubek\)](#)

Carcass searches, example by Germany

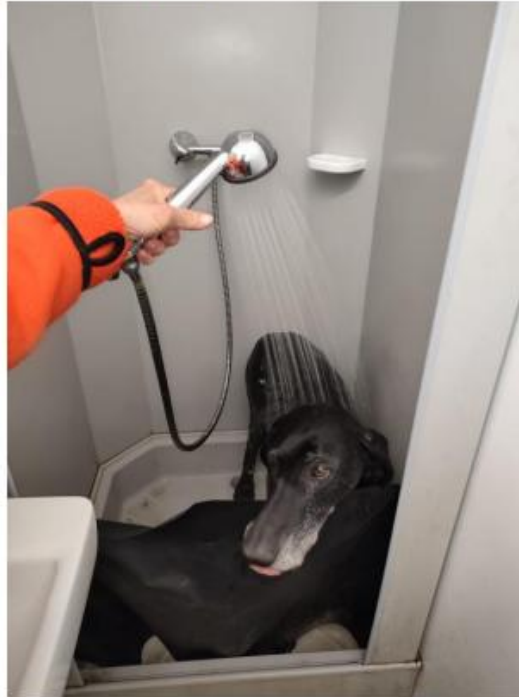
Biosecurity:
Recovery and Disposal
Equipment recovery team and disinfection on-site



Germany (Gunda Lubek)

Carcass searches, example by Germany

Cleaning/Disinfection of Equipment, Animals and Disposal





**Standing Group of Experts on African swine fever in Europe
under the GF-TADs umbrella
Twenty first meeting (SGE ASF21)
28/29 September 2023 – conference – Brussels, Belgium**

3. Any methodology applied to the search for carcasses (people, molecular dogs, drones, etc.) must be used and planned appropriately in advance, above all assessing its feasibility and quantifying the effort in relation to the extent of the infected area.



[Front Vet Sci.](#) 2021; 8: 647439.

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PMCID: PMC8217459

PMID: [34169103](https://pubmed.ncbi.nlm.nih.gov/34169103/)

How to Strengthen Wildlife Surveillance to Support Freedom From Disease: Example of ASF Surveillance in France, at the Border With an Infected Area

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- In January 2019, three dog handlers contracted by ONCFS started to train their dogs to detect the scent of dead WB, and fieldwork started 3–4 weeks later.
- During the study period, five other dogs were trained and used in the field.
- A specific biosecurity procedure was developed for this activity, including washing and disinfecting the dogs' legs after each field session

- A working day with the detection dogs was divided into small search sessions of 00:50 on average (median: 00:43) separated by resting and/or training time.
- Spatial Coverage Distance travelled by hunter patrols was 5.6 km on average per field session (median: 4.6 km).
- The distance travelled by dog handlers was 4.7 km on average per field day (median: 4.9 km).
- The dogs covered 2.3 times more distance than the dog handlers.

Table 1

Surveillance effort and carcass detection compiled by active search activity over the study period in France, at the border of an infected area.

		Sept- Dec 18	Jan- Apr 19	May- Aug 19	Sept- Dec 19	Jan- Apr 20	May- Aug 20	TOTAL
Number of field sessions	Hunter patrols	314	352	473	487	264	254	2,144
	Systematic combing	0	28	29	0	0	0	57
	Dog detection (in days)	0	14	26	11	10	5	66
Total duration of the field sessions (hours)	Hunter patrols	643	734	1,071	1,049	607	630	4,734
	Systematic combing	0	96	124	0	0	0	220
	Dog detection	0	42	59	26	26	9	162
Total human involvement (hours)	Hunter patrols	981	992	1,342	1,354	818	643	6,130
	Systematic combing	0	1,026	1,358	0	0	0	2,384
	Dog detection	0	100	145	59	58	21	383
Number of carcasses detected	Hunter patrols	1	0	0	1	0	0	2
	Systematic combing	0	4	0	0	0	0	4
	Dog detection	0	2	0	0	0	0	2
	SAGIR opportunistic surveillance (roadkill)	22 (17)	15 (8)	3 (2)	4	2	0	46

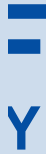
Challenges

Carcass searches with dogs

- *Special & well-trained dogs?*
- *Cost?*
- *Efficiency?*
- *Swamp areas?*

Carcass searches with drones

- *Cost of drones?*
- *Authority or persons?*
- *Seasonality?*
 - **Summer, leaves?**



Thank you!

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