

African swine fever and detection dogs for wild boar carcasses

This is part of a broader study on the possibilities for deploying detection dogs to locate wild boar carcasses in the event of an outbreak of African swine fever (by Hilde Vervaecke and Manon De Meester, Odisee University of Applied Sciences, Belgium; steering committee members: Uta Kielau, Ellen Van Krunkelsven, Kristof Baert, and Arno Thomaes).

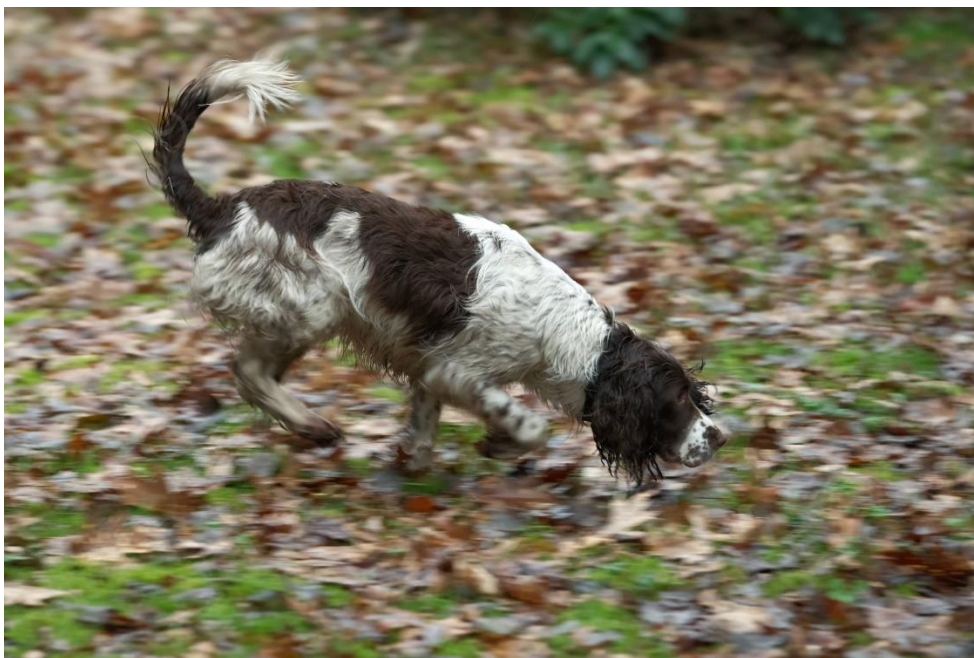


Photo: ©Guido Franssens

Practical guideline for setting up search dog teams for deployment during an AVP outbreak in Flanders

How can AVP detection dog teams be practically established in Flanders? This guideline takes into account scientific and practical insights gathered in the research report 'Carcass search dogs for African swine fever'. For further information, reference is made to the various sub-reports.

Reference:

Hilde Vervaecke, Ellen Van Krunkelsven, 2025. Practical guideline for setting up search dog teams for deployment during an AVP outbreak in Flanders. Report 9 voor ANB (Agentschap voor Natuur en Bos; Agency for Nature and Forest).

Acknowledgements: Uta Kielau, Guido Franssens, Marc Weynants, Manon De Meester, Leen Verbist & all contributors to the other reports.

Verdere vragen: hilde.vervaecke@odisee.be

Content

African swine fever and detection dogs for wild boar carcasses	1
Practical guideline for setting up search dog teams for deployment during an AVP outbreak in Flanders.....	2
1. Pilot project for carcass search dogs against African swine fever (ASF) in Flanders.”	4
Project duration	4
Trainers & tasks.....	4
Regions	4
Education of the dog teams	5
Dog handlers.....	5
Suitable target group (dog handlers)	5
Tasks of trainers	5
Number of trainings	5
Content training	6
Support of the pilot-project	7
Persuading decision-makers and policymakers	7
Official permissions	7
2. Deployment of detection dog teams in case of an ASF-outbreak	8
Overarching ASF-management team	8
Data-follow up ASF	8
Communication on ASF	8
Communication on deployment of detection dogs	8
Management of deployment of dogs and drones in case of an outbreak	9
Management of deployment of drones in case of an outbreak.....	9
3. Sustainable continuation of the pilot project	9
Sustainable management of training	9
Other urgent detection targets (e.g. invasive species,...)	9

1. Pilot project for carcass search dogs against African swine fever (ASF) in Flanders.”

In a pilot project, the protocol developed in the research project (**cf. Report 4**) can be tested in practice within the Flemish context and optimized where necessary. The project is supervised by professional detection dog instructors.

Project duration

The pilot project runs for a sufficient duration to include the initial training, the subsequent maintenance training, and certification: 12 months.

Trainers & tasks

During the course of the research project, trainers with the appropriate skills and willingness were approached. They took part in observational visits to the TCRH in Mosbach, Germany—a centre of excellence in carcass detection for swine fever—to observe training sessions and examinations, and to speak with trainers and handlers. Based on the available models, they contributed to rewriting a protocol tailored to the Flemish context. As source material, we relied on the various existing German protocols, with the TCRH protocol (Mosbach, Baden-Württemberg) as the primary reference, supplemented by available French and Walloon information.

Cfr. Report 3 & 4, & appendixes with 3 & 4

These trainers are prepared to carry out a pilot project (cfr. Table1). Other interested trainers may also be involved.

Name	Task in pilot-project	Relevant expertise
Ellen Van Krunkelsven	Coördination and overarching training sessions	trainster of dogteams at the Federale Police eco-detection project INBO coördinator Noses for Nature
Mark Weynants	training of teams in region Flemish-Brabant	Police experience explosive detection dog handler EU-project explosive detection dog trainer
Guido Franssens	training of teams in region Limburg	Military experience Ecological detection dog trainer

Table 1: Names, tasks and expertise of trainers of pilot project

For more contacts cfr. Contactlist **Report 8** (for internal use only, privacy-protected)

Regions

Because Limburg and Flemish Brabant are risk areas in terms of wild boar distribution, and because a regional presence of search teams is important, the focus is on these regions (or neighbouring regions). Ideally, volunteer dog handler candidates are selected from these regions.

Education of the dog teams

Dog handlers

A starter group is formed, willing to undergo one year of voluntary, unpaid training. They form the beginning of a reserve group with potential deployability in the event of an outbreak.

Number: two training groups of 10 people per group.

Suitable target group (dog handlers)

- Professional detection instructors
- Those who already train their dog in detection, professionally or voluntarily (police, customs, military, civilians, ...)
- People with experience in detection, eco-detection, mantrailing, search and rescue, or tracking shot game during hunting
- People already working at the ANB with an interest in detection training

People who raise or keep pigs at home are avoided due to the risk of ASF transmission.

- Selection of candidates is based on motivation, operational readiness in the event of African swine fever, availability (time), physical capabilities, dog characteristics, and the bond between dog and handler. The importance of these criteria is described in Report 1. The selection procedure is outlined in the protocol (**Report 4**) and in **Report 5**. A model questionnaire that can be presented to candidates is available.

Cf. **Appendix** Desvaux et al., 2025 questionnaire.

Tasks of trainers

- Contact potential candidates, distribute call for applications
- Selection of dog handlers and dogs
- Initial training
- Follow-up maintenance training
- (Later: certification)

Number of trainings

For each of the teams, the following schedule applies:

Start weekend: A training weekend with overnight stay is organized. The goal is to get acquainted and teach the basic skills.

- Location: a venue where theoretical lessons can be given, a quiet nearby parking area where the dogs can stay in the vehicles, and a location where the dogs can also train outside in a calm, forested environment.

Follow-up trainings: Training takes place twice a month.

- Location: same as the start training, and variable locations in different model search areas depending on availability.

Home training: The teams continue training at home and organize additional sessions together.

Online team building: A WhatsApp group is created to communicate appointments and share information and progress with each other.

Online coaching: In case of training problems, individual teams can send their questions to their trainer for guidance.

Content training

Objective – Handler practical skills:

- Handling the target odor
- Learning how to structure exercises
- Handling training equipment
- Reading the dog
- Learning to guide the dog
- Search tactics
- Using GPS
- Biosecurity
- Behavior during deployment

Objective – Dog skills:

- Handling the target odor (recognition, differentiation)
- Conditioning
- Indication of odor
- Indication of odor in atypical locations (proof of odor recognition)
- Indication of odor in typical deployment areas
- Achieving green certificate level

Theory:

- Odor differentiation
- Handling and guidance during deployment
- Actions upon finding a carcass
- Biosecurity and hygiene protocols
- GPS use – Garmin
- Tasks of the handler (as “search team assistant”)
- Knowledge of search tactics, influence of terrain and climate factors (wind, temperature, thermals, etc.)

The relevant knowledge is tested and forms part of the green certificate.

Example – Start weekend:

Day 1:

- Meeting and introductions
- Introduction to the project
- Theory
- Practical training: first steps in odor recognition, odor differentiation, working at various stations (line-ups, carousel, etc.)

Day 2:

- Practical training:
- Working on indications
- Further work on odor differentiation, adapted to the level of the dog teams
- Training in meadows, small vegetated areas, road edges, small forests

Further training days:

- Continued work on odor recognition, indication, and search behavior, adapted to the individual level of the teams
- Green certificate test

Support of the pilot-project

Persuading decision-makers and policymakers

- Without the use of detection dogs, efficient ASF control is not possible (cf. Report 2b). To provide managers and policymakers with insight into the effectiveness, complexity, and costs of detection dogs, as well as the need for their long-term deployment, the coordinator of the TCRH search dog teams (Mr. Jürgen Schart) is willing to have a meeting or write a letter. He can explain why long-term dog teams are necessary, share experiences, and make successes and challenges tangible.
- It is possible to request the minister to allow TCRH courses to be shared with Flanders. This must be done through the appropriate Flemish authorities; Mr. Schart can refer to the responsible German minister.
- A beneficial side effect is the cross-sectional connection between the various “blue light” services (police, fire brigade, etc.). Barriers/silos are broken down, creating a shared community. “You must make all stakeholders think in terms of common goals” because ASF transcends all borders.
- Observation of search dogs: seeing trained dogs in action immediately demonstrates their capabilities and how much faster they are than humans under realistic conditions. These are selected, trained, and certified teams at work—not hobby dogs. This strengthens trust in their deployment and strategic value. Awareness of existing protocols that describe the dogs’ work and certification, combined with observing an experienced team in action, can enhance confidence in their professionalism. This supports decision-making and stakeholder acceptance.
- Financial support is required (cf. **Report 2a**: Costs of dog deployment).

Official permissions

- Obtain official permissions to work with screened pig carcasses as training material, confirmed negative for Aujeszky’s disease and African swine fever.
- Arrange access for training teams to training locations (e.g., forests, meadows, fields, nature reserves, military areas, agricultural areas, etc.).
- Adjust legal regulations regarding both leashed and off-leash searches for carcasses by detection dogs in the context of ASF monitoring and training (cf. **Report 5**).
- Administrative follow-up of the pilot project, including payment of trainers and insurance for volunteers. Information on this is compiled under “operational aspects” (cf. **Report 5** and appendix: example contract).
- Operational support to test hygiene measures during the pilot project (cf. **Report 5**). This requires equipment such as a hygiene sluice for vehicles, showers for people and dogs. From an animal welfare perspective, special attention during the pilot project should be given to methods for cleaning teams without long waiting times and with showers or baths adapted to the dogs.
- Links to biosecurity protocols :
 - Friedrich-Loeffler Institut, 2024, Richtlinie über Mittel und Verfahren für die Durchführung der Desinfektion bei bestimmten Tierseuchen:
<https://www.fli.de/de/aktuelles/kurznachrichten/neues-einzelansicht/aktuelle->

[desinfektionsrichtlinie-fuer-tierseuchen-online/](#)

- “Deutsche Veterinärmedizinische Gesellschaft e.V.”: <https://www.desinfektion-dvg.de/index.php?id=2299>
- Legislation Germany: <https://www.buzer.de/gesetz/7039/a211492.htm>

Protocols in appendix **Appendix with Report 5:**

- Friedrich-Loeffler Institut, 2024, Richtlinie über Mittel und Verfahren für die Durchführung der Desinfektion bei bestimmten Tierseuchen.
- French report: 2025_OFB_Chiens_detection_Formation_pilote_vf

2. Deployment of detection dog teams in case of an ASF-outbreak

To initiate deployment of carcass detection with search dogs, not only a reserve of search dog teams is needed, but also an overarching organization. You must be prepared and not wait to respond until ASF is already present.

Overarching ASF-management team

Only the coordination and collaboration between various experts and professionals can lead to a successful approach to ASF. This requires a solid understanding of the search areas and search strategies, the capabilities of trained detection dogs, effective population control methods, and hunters’ knowledge (Kruszyński et al., 2026)¹. The management team for ASF monitoring, both before and during an outbreak, is crucial. This team also includes deployment strategists who decide which zones are to be searched and when (**Report 2b: Efficiency; Report 5: Deployment Strategy; Report 6: Search Zones**). These teams provide the organization of specialized advice, leadership, and ensure the necessary deployment resources (**Report 4: Logistical and Operational Aspects**).

Data-follow up ASF

Collecting monitoring data (people, drones, detection dogs) (cf. **Report 5**).

Communication on ASF

Extensive communication resources are already available:

- On the website of the State of Hesse: <https://schweinepest.hessen.de/>
- On the EFSA website, several communication toolkits are available: <https://www.efsa.europa.eu/en/topics/topic/african-swine-fever>

Communication on deployment of detection dogs

The search dog teams receive an information brochure that they can give to interested persons who approach them during fieldwork. A model of this brochure—which can be adapted and translated—can be found here:

¹ Kruszyński, M., Larska, M., Banaszak, B., Świlak, J., Tarka, P., Pejsak, Z., ... & Woźniakowski, G. (2026). Use of dogs trained to search for wild boar carcasses in passive surveillance as the most effective tool to control the spread of African swine fever in Poland. *Preventive Veterinary Medicine*, 106784.

- Baden-Württemberg: <https://tcrh.de/angebote-trainings-seminare-ausbildung-uebungen-fortbildung-weiterbildung/orten-retten-und-bergen/kadaver-suche-afrikanische-schweinepest-asp/>
- Hessen, Germany: https://schweinepest.hessen.de/sites/schweinepest.hessen.de/files/2024-11/hmlu-broschuere_asp-kadaversuche.pdf

Management of deployment of dogs and drones in case of an outbreak

Organization of large-scale deployment of dog teams and drone pilots during an outbreak, operational management of transport, accommodation (hotels), deployment of appropriate teams based on terrain difficulty, dog or drone (**Report 5:** Operational Aspects; **Report 10:** Drones; **Report 11:** Comparison Drone-Dog).

Management of deployment of drones in case of an outbreak

Organisation of large-scale deployment of drone pilots during an outbreak, operational management, and deployment of appropriate teams based on terrain difficulty, dog or drone (cf. **Reports 10 & 11**).

3. Sustainable continuation of the pilot project

Sustainable management of training

- Evaluation of the pilot project
- Development of a permanent structure for training carcass search dogs and detection dogs for other purposes (cf. **Report 7**).

Other urgent detection targets (e.g. invasive species,...)

The first step is to provide a contact for other potential deployment purposes of the detection dogs. Trained dogs can be quickly adapted to work on other target odours (cf. **Report 7**).

Each deployment request must first undergo a feasibility analysis. A methodology for this is being developed within an ongoing Flemish project ('Snuffelkompas', Odisee research group Salto, Agro- and Biotechnology; contact: Ellen Van Krunkelsven, Hilde Vervaecke, Leen Verbist).