



Diagnosis Solutions for African Swine Fever Virus

To collaborate in the prevention of spread of ASFV, and to maintain the well-being of your farm animals, Gold Standard Diagnostics provides a wide range of support tools, as well as in-field or laboratory tests to guarantee an early detection of the disease, as there is currently no effective vaccine or treatment available for the disease.

Prevention and early detection play a key role in the control strategy of the ASFV. We aim to offer management tools and comprehensive diagnostic solutions - ELISA, LFA and molecular assays - to detect ASFV in domestic pigs and wild boars.

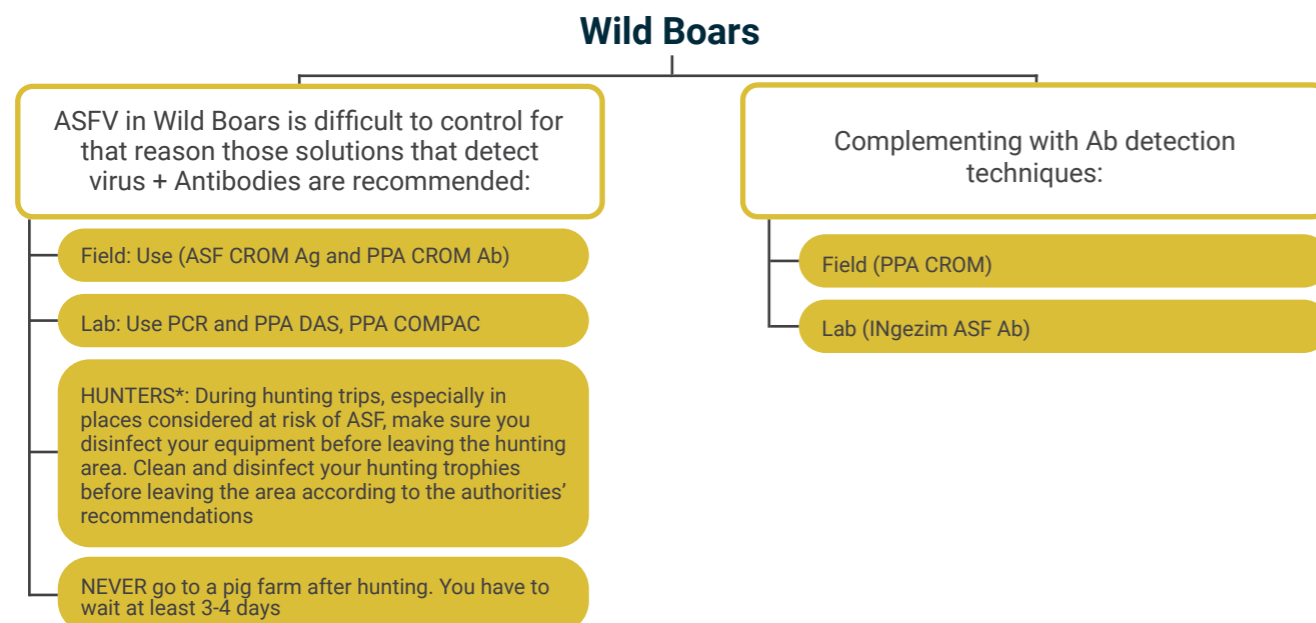
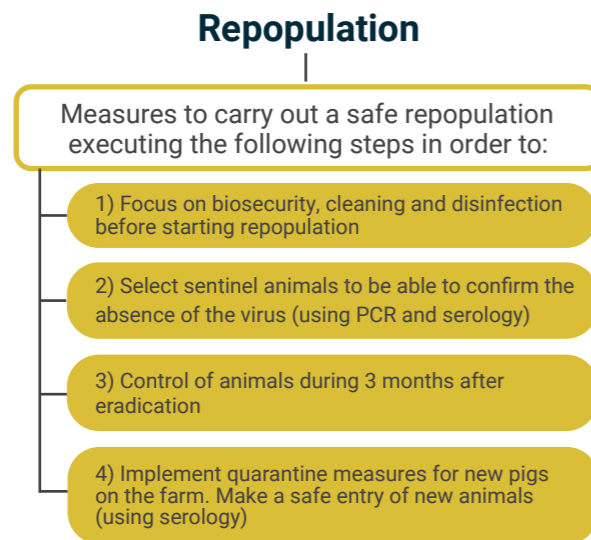
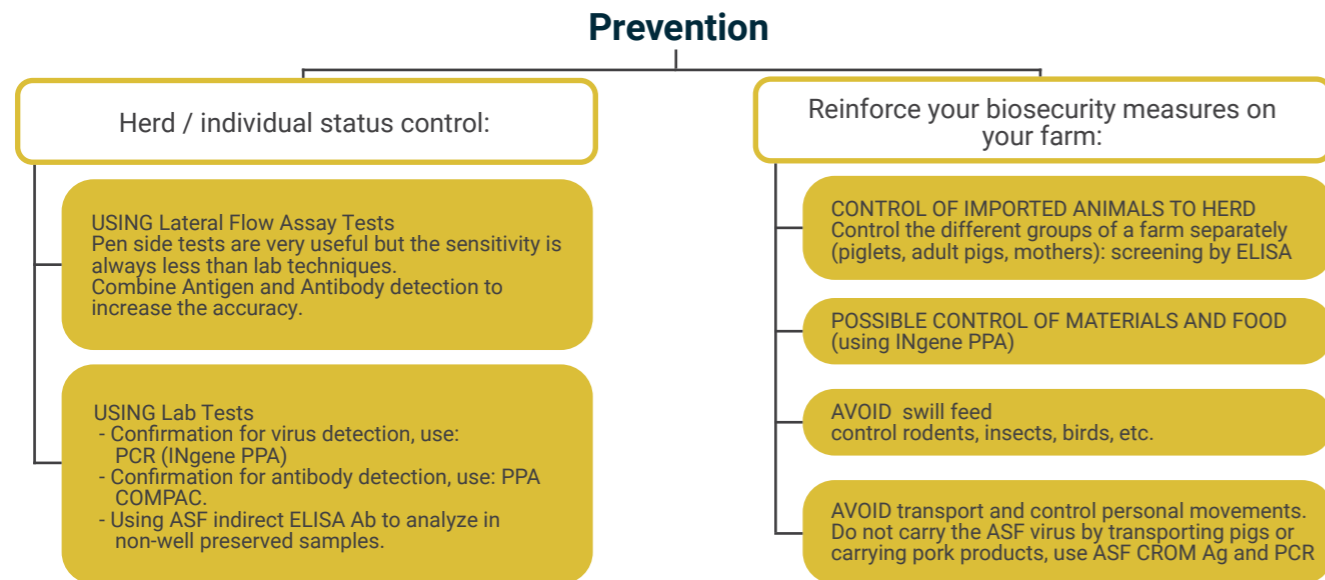
Key Benefits

- Easy and reliable tests with high specificity and sensitivity
- Detecting a wide range of ASFV genotypes
- Different formats available to fulfill specific requirements
- Streamlined workflows
- Offering one solution for each scenario of ASFV situation



Recommended Protocols of Analysis for the Management of different ASFV Scenarios*

* The following information is collected in the coming document: World Organisation for Animal Health (OIE); Manual of Diagnostic Tests and Vaccines for Terrestrial Animals; Infection with African Swine Fever Virus



How Many Animals Do I Have to Analyze on my Facilities?

The following data is just informative, it is not mandatory to strictly follow the information in the table.* Taking into account the following parameters: 95% confidence and 10% prevalence, you have to analyze 10% of the animals to ensure that the disease is not in your facilities with:

- PPA COMPAC
- INgene q PPA
- Combination of INgezim PPA CROM Ag and INgezim PPA CROM Ab
- INgezim PPA DAS

If you use separately INgezim ASF CROM Ag detection or INgezim PPA CROM Ab detection, you have to analyze 13% of the animals to ensure that the infection has no presence in your facilities.

These parameters are used for populations of more than 2,000 pigs. If this is not the case, and the number of pigs is lower, it is advisable to follow the table below to know the minimum number of pigs to be analyzed:

Population size	Number of Suggested Samples	Confidence
20	19	95%
40	31	95%
60	38	95%
80	42	95%
100	45	95%
120	47	95%
160	49	95%
200	51	95%
300	54	95%
400	55	95%
500	56	95%
1000	57	95%
≥2000	10% population	95%

* OIE Manual, Principles and Methods of Validation of Diagnostic Tests of Infectious Disease



Antibody Detection Solutions

INgezim PPA COMPAC - 11.PPA.K.3

Blocking ELISA IgG and IgM detection (1)(2)

- Detection in pig serum samples.
- >99% Specificity & >99,5% Sensitivity respect the OIE method
- This test has been validated by the European Reference Laboratory (EURL)
- This method is recognized and recommended by the OIE Reference Laboratory for ASFV

INgezim PPA CROM Ab- 11.PPA.K.41

Laterla Flow Assay (2)

- Detection in pig and wild boar serum, plasma and blood samples
- Processing time of 10 minutes
- Sensitivity: 99% correspondence with the OIE ELISA.
- Specificity: 99.5% correspondence with INGEZIM® PPA COMPAC and OIE ELISA.
- 96% specificity and >80% sensitivity respect IPMA (wild boars)

INgezim ASF Ab – 11.ASF.K1 **NEW!**

Indirect ELISA IgG detection

- Detection of Ab in wild boars and pigs serum and blood samples
- Particularly useful for “non-well-preserved” samples

Antigen Detection Solutions

INgezim PPA DAS - 11.PPA.K.2 **RENEWED!**

Double Antibody Sandwich ELISA (2)

- Analytical Sensitivity: detection of antigen in blood from day 7-10 p.i.
- Detection in pig and wild boar blood, serum, exudates, tissues samples
- Market Exclusivity for this reference

INgezim ASF CROM Ag - 11.ASF.K.42

Lateral Flow Assay (3)

- Detection in pig and wild boar blood samples
- Analytical Sensitivity: detection of antigen in blood from day 7-10 p.i.
- Processing time of 10 minutes
- Especially efficient in acute stages of the disease

INgene q PPA - 11.PPA.K.5TX/Q **RENEWED!**

Real-Time PCR kit

- Improved Sensitivity, LOD95%=10 copies/rxn
- Improved formulation and stability
- Detection in blood, serum, exudates and tissue samples
- Designed in compliance with OIE guidelines
- Validated by the EURL-ASF (CISA-INIA)
- Perfect agreement with the OIE reference method (UPL) & better sensitivity than the UPL assay in pooled samples
- Suitable for pools of up to 20 samples (for subclinical or chronic infections (CT>30), pools of 3-5 samples are recommended)

(1) This method is recognized by the OIE Reference Laboratory for ASFV

(2) Evaluation of protection induced by immunisation of domestic pigs with deletion mutant African swine fever virus BeninMGF by different doses and routes. Sanchez-Cordon PJ, Jabbar T, Berrezaie M, Chapman D, Reis A, Sastre P, Rueda, P, Goatley L, Dixon LK. Vaccine. 2018

(3) Development of a novel lateral flow assay for detection of African swine fever in blood. Sastre P, Gallardo C, Monedero A, Ruiz T, Arias M, Sanz A, Rueda P. BMC Vet Res. 2016 Sep 15;12:206. doi: 10.1186/s12917-016-0831