



ENHANCED SURVEILLANCE AND DIAGNOSTIC CAPABILITIES

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Third Meeting of the Standing Group of Experts (SGE) on
African swine fever (ASF) of the GF-TADs for Africa



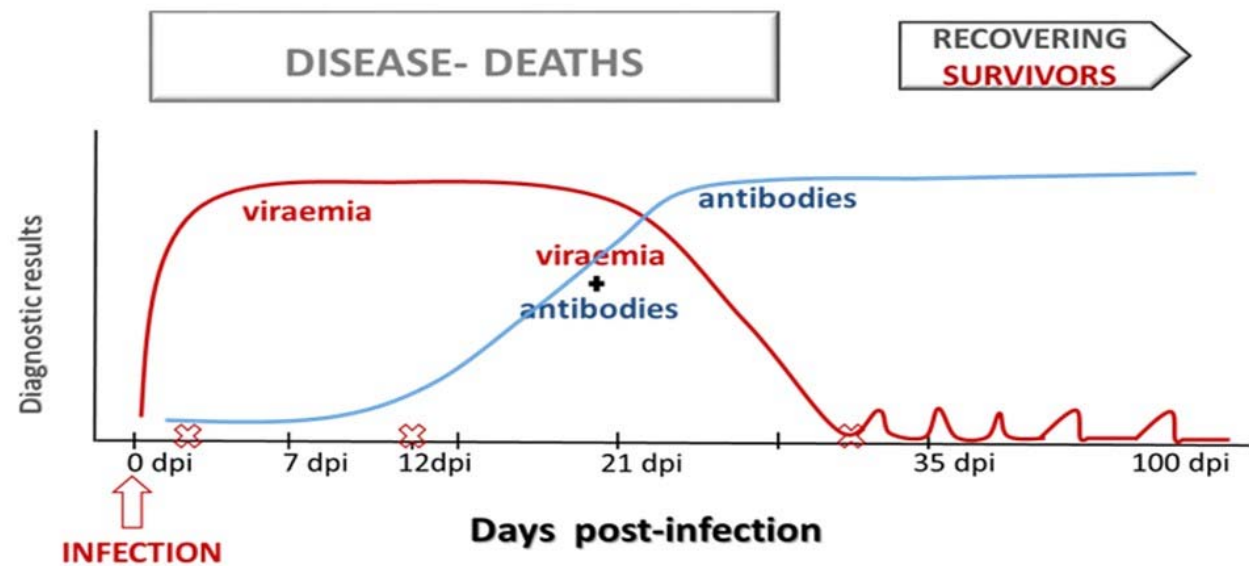
Abidjan, Cote d'Ivoire, 1 – 3 August 2023

ASF is no more a problem of Africa alone



Houston, USA
airport June, 2023

Clinical forms of ASF according to the virulence of the isolate involved



Clinical forms of African swine fever according to the virulence of the isolate involved





Current diagnostics

- Clinical diagnostics → Common clinical signs with other pig diseases.
- Lesion identification → Only post-mortem
- Viral particle identification
 - Viral particle isolation or detection
 - Viral genome detection
- Serological tests → previous exposure

COMMON PROBLEM → NEED INFRASTRUCTURE AND EXPERTISE

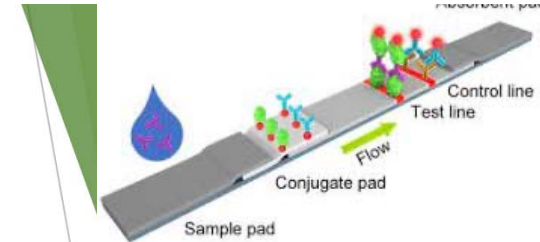
Can the use of later flow assay (LFA) change policies? Compensation system for reporting?

Viral particle detection

- RingBio (China)
<https://www.ringbio.com/solutions/swine/asfv-african-swine-fever-antigen-test-kit-ringbio>
- Eurofins-Ingenasa (Spain)
<https://ingenasa.eurofins-technologies.com/home/products/veterinary-diagnostics/elisa-rapid-tests/porcine/asfv-african-swine-fever/ingezim-asfv-crom-ag/>
- PenCheck (US) Pubmed
<https://pubmed.ncbi.nlm.nih.gov/35215082/> kit webpage: <https://www.penchecktest.com/>
- Gold standard qPCR, OIE and Tignon, 2011.

Antibody detection

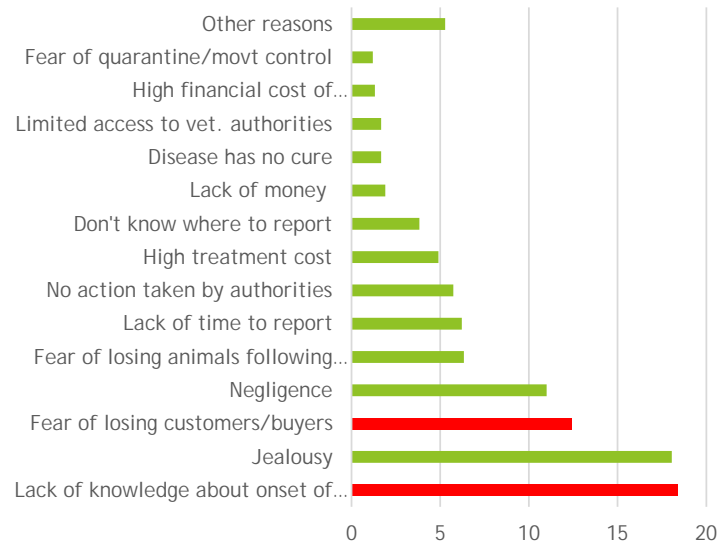
- p54 blocking ELISA (US) from Biostone Animal Health LLC (US)
- p30 Algenex indirect ELISA (Spain)
- Global DX (UK), <https://globaldx.com/herdscreen/>
- Eurofins-Ingenasa (Spain), <https://ingenasa.eurofins-technologies.com/home/products/veterinary-diagnostics/elisa-rapid-tests/porcine/asfv-african-swine-fever/ingezim-ppa-crom-anticuerpo/>
- Gold standard, OIE ELISA SOP and Eurofins-Ingenasa p72 competitive ELISA (Spain)
<https://ingenasa.eurofins-technologies.com/home/products/veterinary-diagnostics/elisa-rapid-tests/porcine/asfv-african-swine-fever/ingezim-ppa-compac/>



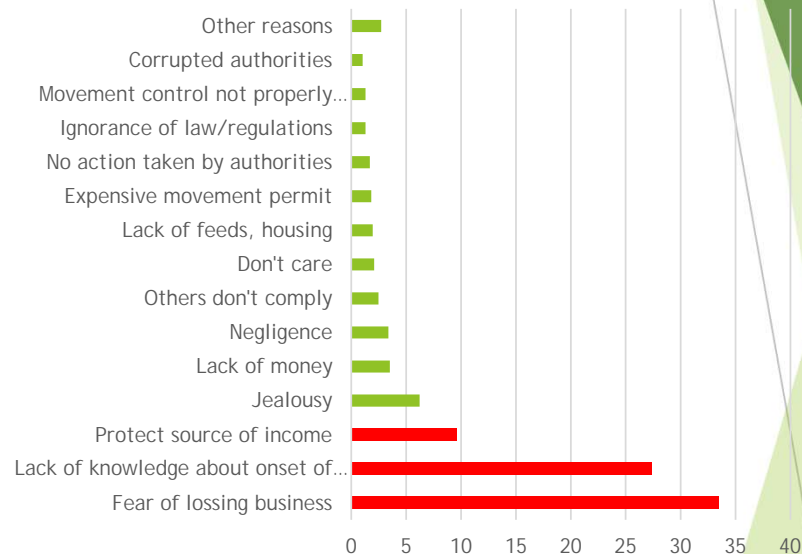


Reasons why Ugandan pig farmers would not report disease outbreak and not comply to animal movement control (n=960)

Outbreak reporting (%)

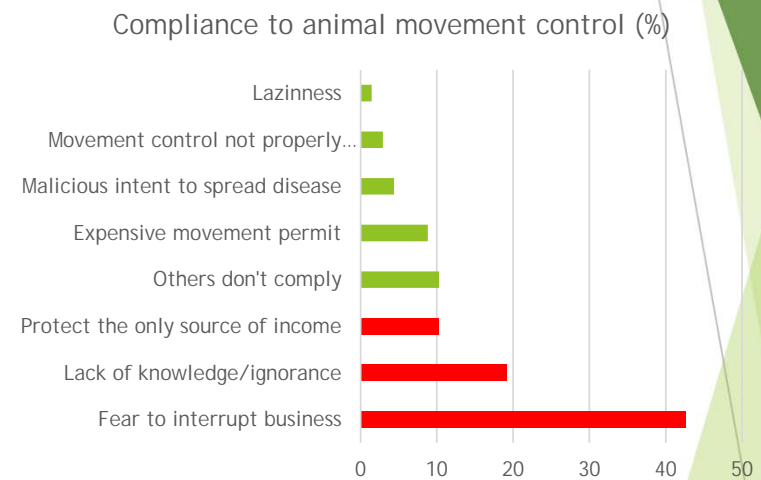
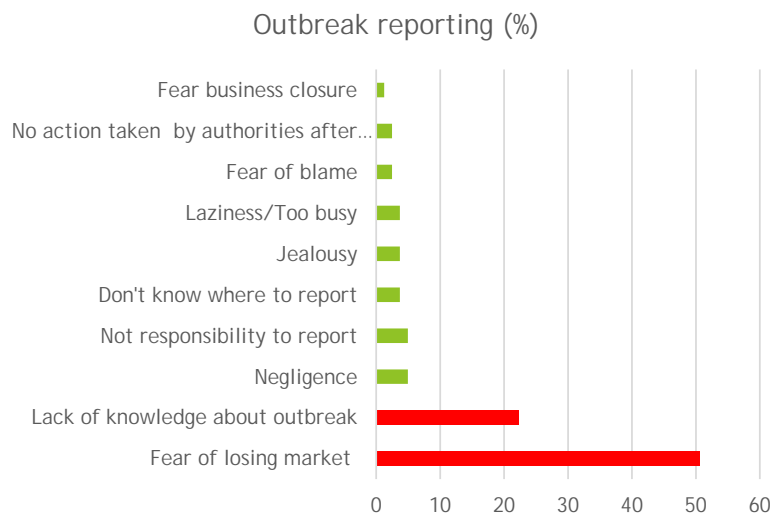


Compliance to animal movement control (%)



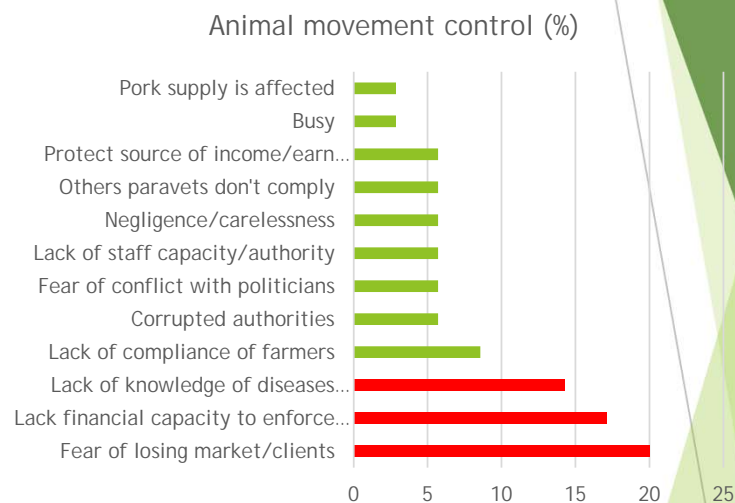
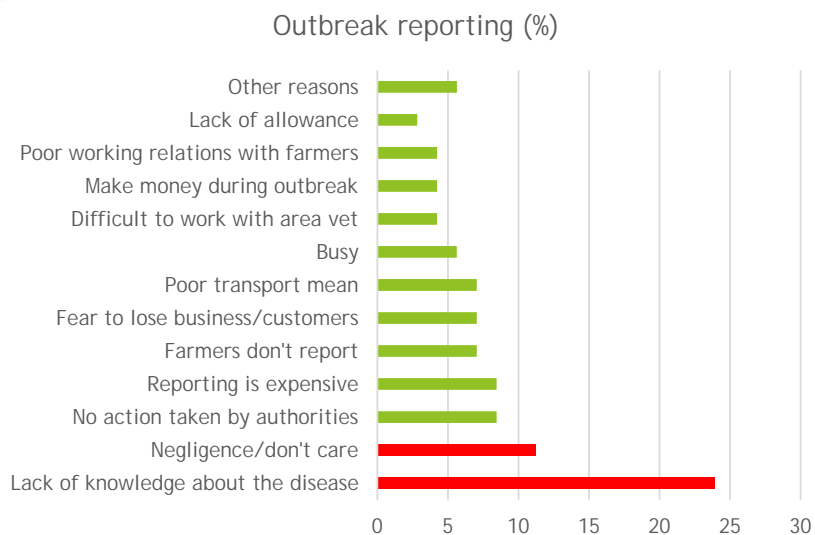


Reasons why Uganda pig traders would not report ASF outbreak and not comply to pig movement control (n=90)





Reasons why Uganda vets would not report ASF outbreak not comply to animal movement control (n=70)





“Protection of income source and lack of knowledge are key drivers of non or poor reporting of ASF outbreak by chain actors”



Market demand for *Taenia solium* Cysticercosis Vaccine - Uganda

- **Farmers** are willing to pay US\$ 2.31 for the vaccine if it resulted in a premium price for vaccinated pigs.
- The **pig traders** on the other hand preferred high carcass weight of pigs, potentially achieved by using oxfendazole.
- The current pig marketing system does not reward food safety, the focus is mainly on carcass weight.
- Private-public investments needs to be explored, as the benefits of vaccinated pigs are societal and include reduction and elimination of neurocysticercosis in the long run - One Health





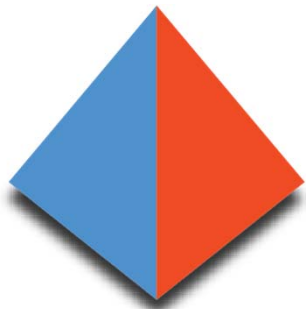
Other challenges for ASF surveillance

- Lack of functional diagnostics labs
- Poor inspection/tools at slaughterer house and at live pigs at market
- Limited capacity of veterinary services to intervene during disease outbreaks
 - Poor logistics in place for intervention during ASF outbreak
 - Lack of human resources



Recommendations for improving ASF surveillance and control

- Identify (financial) incentives for actors to report outbreaks - business models
- Strengthen disease surveillance systems
 - Capacity building of private vets and veterinary services including labs
- Promote cost effective lateral flow penside tests
- Set up reliable surveillance systems at slaughterhouse and markets
- Develop alternative ways of disease reporting by increasing the involvement of the community with self-regulation system
- Use ICT for channeling information on disease to cut on the current high cost of communication



GF-TADs *Africa*

GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES



Food and Agriculture
Organization of the
United Nations



World Organisation
for Animal Health
Founded as OIE

