

Epidemiological Investigation of an African swine fever outbreak on a commercial farm in Uganda

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1 Introduction

- African swine fever (ASF) remains a big threat to the growth of pig industry in Uganda.
- We described an ASF outbreak in a large commercial pig farm in central Uganda, including virus introduction and internal spread.

Methods/Approach

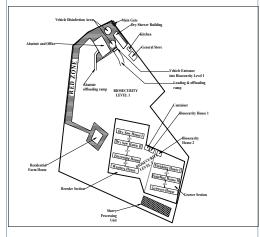
The study considered:

- Farm observation
- Farm records
- Interviews with director and workers
- Sampling and laboratory testing of biological and feed samples

Results (Graphs, Tables, Figures)

Disease prevention and control plan

 High levels of external and internal biosecurity arrangements.



"Disease Outbreak Contingency Plan" was available.

Sources of ASFV introduction in the farm

- Contaminated vehicles and feeds from a feed manufacturing company in Kampala were suspected.
- Feed samples tested positive for ASFV in 2022 outbreak.
- Workers and visitors entering farm with contaminated boots, clothes or hands
- Jealous neighbors.

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Sources of ASFV Spread within and across the houses

Pig-pig body contacts through open partitions.



- Internal transfer of pigs (all health status).
- Movement of contaminated materials.
- Lack of adherence to biosecurity protocols.

4 Discussion

The vehicles' frequent entry into farm:

- farmers trucks buying farm's piglets
- farm trucks bringing farm inputs (e.g. feeds, etc) including growers pigs bought from farmers
- all increases chance of ASF introduction if vehicles were exposure to ASFV contamination from outside the farm.
- Less than 50% of pig commercial farms disinfect vehicles returning from outside (Li et al., 2019).
- Possible feed contamination could have occurred from within or outside the farm (including laboratory)

Considering ASF spread:

 Confirmed ASF presence in different pens within a pigsty and across pigsty were likely due to pig-pig contact, and or movement of contaminated materials.

5 Conclusion

- The study underlines the high risk for introduction of ASFV at a commerical pig farm in an ASF-endemic setting, and the importance of every-day adhernce to exisiting biosecurity routines.
- These findings may improve the prevention of ASF outbreak and control in other large commercial pig farms.
- Contaminated feeds was a possible source of ASF introduction of ASFV into a commercial farm.

6 References & Aknowledgements

Li, Y., Edwards, J., Wang, Y., Zhang, G., Cai, C., Zhao, M., ... Robertson, I. D. (2019). Prevalence, distribution and risk factors of farmer reported swine in fluenza infection in Guangdong Province, China, 167(November 2018), 1–8. https://doi.org/10.1016/j.prevetmed.2019.03.011







