

**ASSESSMENT OF FARMER'S KNOWLEDGE ON THE
CONTROL MEASURES OF AFRICAN SWINE FEVER IN
OKWERODOT SUB COUNTY, KOLE DISTRICT**

**BY
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DECLARATION

I, **OYIE OGWOK LEVY**, declare that this Research Dissertation is my original compilation and that this proposal has never been submitted to any university for the award of any degree.

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May God bless you all, Amen

DEDICATION

This piece of work is dedicated to my wife Florence Oyie, my mother Hadolin Obua, my sister Mrs. Silvia Otwi, Anna Adimo, Mrs. Collin Ocen, Opok Arnold Pius, and Akica Edna.

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List of abbreviations

ASFV	African Swine Fever virus.
DPMO	District Production and Marketing Officer.
DVO	District Veterinary Officer.
FGDS	Focus group discussion.
LC1	Local Council One.
SOPS	Standard Operating Procedures.
UBOS	Uganda Bureau of Statistics.

ABSTRACT

High morbidity and mortality resulting from African swine fever among the pig population have caused heavy economic losses to farmers, threaten food security, and limited piggery production. This study assessed farmers' knowledge on biosecurity measure used to control Africa Swine Fever (ASF). A cross-sectional study design was employed where open-ended questionnaire, Key informants' interview, and focus group discussion was used to assess farmer's knowledge of biosecurity measures used in the following villages with the respective number of farmers – 150 (males = 93, females = 57); Okwerodot parish (Okwerodot - 10, Acaeogik - 07, Teopok - 08, Adogmonmio - 08, Adyelodeo - 09 and Ongura -09 villages), Obutu parish (Obutu center - 10, Obutu corner - 09, Abolowoo - 10, Alango - 08, Baribule 'A' - 09 and Baribule 'B' – 08 villages) and Abongojok parish (Alake center - 08, Woromite - 08, Acootedo 'A' - 06, Acootedo 'B' - 08, Apii - 09 and Abongopapa – 06 villages), Okwerodot Sub County, Kole District.

All the data obtained were analysed using SPSS, descriptive statistics were used to present the data in table and graphs and, t-test was generated to separate the mean at 5% significant level. Significant ($p \leq 0.05$) differences were observed in the combination of disinfection and control of visitors, disinfection and animal movement control, disinfection and swill feed purchased control and, disinfection and vehicle control as biosecurity measures used by farmers to control ASF. Therefore, over 60% of pig farmers were using tethering system of rearing pigs and were proven to have some basic knowledge on the prevention and control of diseases especially ASF and, were getting veterinary services from qualified veterinary personnel. Further research needs to be conducted to examine the effect of combining the current biosecurity measures against other diseases and, enhancing the capacity of different stakeholders about ASF and implementation of combined different biosecurity measures which are feasible and cheap to implement.

Keywords: Farmers' knowledge; biosecurity measure; Africa Swine Fever

CHAPTER ONE: INTRODUCTION

BACKGROUND

Piggery production has contributed to increasingly improved nutrition and generation of income for households in different regions of Africa where pig rearing and pork consumption are accepted. Over the past five years there, has been the production and consumption of pork in some countries in sub-Saharan Africa. Pig production in Africa is frequently associated with outbreaks of African swine fever (*Nantima et al., 2016*). Piggery production in Uganda largely involves very small herds kept under free-range management, tethered, and more rarely housed. More than 80% of herds consist of one to five pigs, despite the small average herd size, the Ugandan pig population increased from 3, 184, 0000 in 2008 to 4,037,000 in 2016. Uganda is reported to have the highest pork consumption in East Africa with an estimated annual per capita pork consumption of 3.4 kg (*Aliro et al., 2022*). ASF is a viral, infectious, and notifiable swine disease with a very high case fatality rate, it can be transmitted through direct contact with infected animals, ingestion of contaminated meat products, and contaminated fomites to domestic pigs and wild boar. The highly resistant virus can persist under different environmental conditions, contaminated fomites, and meat products for several months; thus, it contributes to disease spread and the risk of transmission through the movement of commodities that are contaminated (*Muñoz-Gómez et al., 2021*). African swine fever is a viral disease that is highly contagious and it affects both domestic pigs and wild boars that act as reservoirs in the wild. It result in high mortality rate of 100% cases when introduced to a naive pig herd. African swine fever is endemic in Uganda and it causes high economic losses to smallholder pig farmers. Currently, there is no effective vaccine or treatment available hence the need for increased awareness and strict adherence to farm biosecurity measures as primary tools to protect pig herds from infection. (*Dione et al., 2020*). The increased practices of biosecurity like avoiding usage or treatment of swill feeds, Confinement of pigs, Cleaning, use of disinfectants, proper disposal of dead pigs by burying, Restricted movement within farms, isolation of newly purchased pigs, imposing quarantine in areas with confirmed cases of ASF could relatively lower the transmission rates of ASF between farms, and in value chain compartments or nodes such as trade and slaughter points (*Chenais et al., 2019*). Therefore, a better understanding of farmers 'pledge on biosecurity measures used to combat ASF diseases can help to identify if awareness campaigns could be necessary or if farmers are complying with known biosecurity measures to reduce the disease spread and circumvent its economic losses.

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