

BR

KNOWLEDGE, ATTITUDE AND PRACTICES OF THE FARMERS ON THE USE OF ANTIMICROBIAL DRUGS IN POULTRY PRODUCTION IN TESO SUB-REGION

COMPILED

BY

BAGUMA LEUBEN

BU/UP/2016/1529

Leubenbaguma6@gmail.com

A DISSERTATION SUBMITED TO THE FACULTY OF AGRICULTURE AND ANIMAL SCIENCES IN PARTIAL FILFULMENT FOR THE AWARD OF BACHELORS DEGREE IN ANIMAL PRODUCTION AND MANAGEMENT OF BUSITEMA UNIVERSITY

DECLARATION

I, Baguma Leuben, declare to the best of my knowledge and believe that the work herein is my own and has never been submitted to any university or institution for the award of any degree. I therefore, present it in partial fulfillment for the award of a Bachelor of Animal Production and Management at Busitema University

Sign		
Date		
This dissertation has been submitted with approval of the university supervisor	, (Dr.	Patrick
Mawadri).		
Sign		
Date		

CLASS NO. LACESS NO. LACESS NO. LACESS NO. LACES NO. LAC

DEDICATION

This work is dedicated to my supervisor for the support and encouragement. Thanks for your guidance and endurance, may God reward you abundantly.

ACKNOWLEDGEMENT

I would like to express my deepest respect and most sincere gratitude to my supervisor DR.PATRICK MAWANDRI for his guidance and encouragement at all stages of my work.

TABLE OF CONTENTS

DECLARATION	
DEDICATION	ii
ACKNOWLEDGEMENT	,jii
TABLE OF CONTENTS	ív
ABSTRACT	yi
CHAPTER ONE	1
1.1 Background	1
1.2 Problem statement.	2
1.3.0 Objectives	2
1.3.1 Main objective	2
1.3.2 Specific objectives	2
1.4 Research questions.	3
1.5 Significance	3
1.6 Justification.	3
1.7 Scope	3
CHAPTER: TWO	4
2.0 Literature review.	4
2.1 Definition.	4
2.1.1 HOW ANTIBIOTIC RESISTANCE DEVELOPS	4
2.1.2 How the community increases antimicrobial resistance.	4
2.2.0 Review of methods	6
2.2.1 Review of study design.	6
2.2.2 Review of sample size and sampling.	6
2.2.3 Review of study description	.,.,7
2.2.4 Review of collection instrument.	7
2,2,5 Data analysis.	7
2.2.6 Review of validity and reliability of data,	7
3.1 Introduction	9
3.2 Research design	a

	3.3 Study population.	9
	3,4 Determining sample size.	ۇ
	3.5 Sampling technique and procedure	10
	3.6. Data collection methods.	10
	3.7 Data collection instruments.	10
	3.8 Validity and reliability of the instruments.	10
	3.9 Procedure of data collection.	10
	3.10 Data analysis.	10
	3.11 Measurement of variables.	11
	CHAPTER FOUR: RESULTS	12
C	CHAPTER FIVE: DISCUSSION.	32
C	CHAPTER: SIX	36
	6.1 Conclusion	36
R	EFERENCES	37
	QUESTIONAIRE ON THE KNOWLEDGE, ATTITUDE AND PRACTICES OF THE FARMERS	

.

ABSTRACT

The worldwide increase in the use of antibiotics as an integral part of the poultry and livestock production industry to treat and prevent infectious bacterial diseases and as growth promoters at sub-therapeutic levels in feeds has led to development of antibiotic resistance. The appearance of antimicrobial resistance has been directly linked to the misuse of antibiotics. Antibiotic resistant bacteria have been found in poultry farms where antibiotics are heavily used. The main aim of this study was to investigate the use of antimicrobial agents by poultry farmers in Teso sub-region. This was done by assessing their knowledge, attitudes and practices in the use of antimicrobial drugs in poultry production.

The study was done using a cross sectional survey design and the sample size was obtained using the formula as described by (Ajay & Micah, 2014) data was collected using a pre-tested structured questionnaire and analyzed using descriptive analysis procedures of the Statistical Package for Social Scientists.

64.3% of the respondents attended farmer trainings on the poultry production while 35.7% of respondents had no any training. All the farmers knew some drugs used in the poultry production and 57.1% knew about antimicrobial resistance while 42.9%, 64.7% of respondents claimed that using antimicrobial drugs continuously prevents disease outbreak, 8% said that it increases drug resistance 8.5% of respondents said that it causes harm to human health and 18.8% did not have any idea.

It is therefore recommended that improvement in the existing veterinary legislations of use of veterinary drugs with the ultimate aim of protecting the public health will forestall the misuse of antibiotics. Also education of the public on the dangers of indiscriminate use of antibiotics and medications especially in poultry and livestock farms is imperative.

CHAPTER ONE

Introduction

1.1 Background

Antibiotic resistance is the ability of an organism to resist the killing effects of an antibiotic to which it was administered for and it has become a global issue to the community. (Christian et al n.d.)

According to (Mohammad et al; 2014), antibiotics became widely available; they have been used to destroy disease causing bacteria. But after which bacteria started to develop resistance not only single, but multiple, antibiotics making some diseases particularly which are difficult to control have become more prevalent. Antimicrobial resistance take place when bacteria adjust or adapt in a way that permits them to stay alive in the presence of antibiotics designed to kill them.

Antibiotic resistance is a growing public health concern in Uganda. Antibiotics are generally used to treat microbial diseases in animal as well as in poultry such as Actinobacillus, Bordetalla, Campylobacter, Clostridium, Corynebacterium, Escherichia coli, Globicatella, Listeria, Mycobacterium, Salmonella, Staphylococcus, and Streptococcus. However, the misuse and overuse of antibiotics results in resistance in controlling diseases. The antibiotic resistant bacteria have the ability to resist towards the actions of synthetically produced compounds effect to their survival in poultry (Tripathi, 2017)

Low doses of antibiotics used routinely in poultry production favour emergence of resistant bacteria in poultry some antibiotic drugs are *Ampicillin, Streptomycin, Erythromycin, Tetracycline, Chloramphenicol, Kanamycin, Tobramycin, and Rifampicin*.(Amit Khurana, n.d.)

The worldwide increase in the use of antibiotics as an integral part of the poultry and livestock production industry to treat and prevent infectious bacterial diseases and as growth promoters at sub-therapeutic levels in feeds has led to the problem of the development of bacterial antibiotic resistance during the past years (Apata, 2009)

Most commercial farmers keep chicken for meat and eggs under intensive system. The farmers do everything possible to care for their birds in order to prevent diseases and death to increase on the production of eggs and meat. Antimicrobial drugs are supplemented in poultry feeds at sub-

REFERENCES.

- Ajay, S., & Micah, B. (2014). SAMPLING TECHNIQUES & DETERMINATION OF SAMPLE SIZE IN APPLIED STATISTICS RESEARCH: AN OVERVIEW, II(11), 1–22.
- Amit Khurana, R. S. and M. N. (n.d.). ANTIBIOTIC RESISTANCE IN POULTRY Spread of Resistance from Poultry Farm to Agricultural Field.
- Apata, D. F. (2009). Antibiotic Resistance in Poultry, 8(4), 404–408.
- Asante, K. P., Boamah, E. A., Abdulai, M. A., Buabeng, K. O., Mahama, E., Dzabeng, F., ... Gyansa-lutterodt, M. (2017). Knowledge of antibiotic resistance and antibiotic prescription practices among prescribers in the Brong Ahafo Region of Ghana; a cross-sectional study, 1–9. https://doi.org/10.1186/s12913-017-2365-2
- Awad, A. I., & Aboud, E. A. (2015). Knowledge, Attitude and Practice towards Antibiotic Use among the Public in Kuwait, 1–15. https://doi.org/10.1371/journal.pone.0117910
- Awogbemi1*, J., & Moses Adeyeye1 and Ezekiel Olugbenga Akinkunmi2 1Department. (2018).

 A Survey of Antimicrobial Agents Usage in Poultry Farms and An tibiotic Resistance in Escherichia Coli and Staphylococci Isolates from the Poultry in Ile-Ife, Nigeria, 4(1), 4–11. https://doi.org/10.23937/2474-3658/1510047
- Banerjee, D., & Raghunathan, A. (2018). Knowledge, attitude and practice of antibiotic use and antimicrobial resistance: a study post the "Red Line" initiative, 114(9).
- Braykov, N. P., Eisenberg, J. N. S., Grossman, M., Zhang, L., Vasco, K., Cevallos, W., ... Levy, K. (2016). Antibiotic Resistance in Animal and Environmental Samples Associated with Small-Scale Poultry Farming in, 1–15. https://doi.org/10.1128/mSphere.00021-15.Editor
- Busani, L., Graziani, C., Franco, A., Egidio, A. Di, Binkin, N., & Battisti, A. (2005). Papers & Articles Survey of the knowledge, attitudes and practice of Italian beef and dairy cattle veterinarians concerning the use of, (May 2014). https://doi.org/10.1136/vr.155.23.733
- Christian Agyare, V. E. B., Christian Agyare, V. E. B., Osei, C. N. Z. and F. B., Osei, C. N. Z. and F. B., & Additional. (n.d.). biotic Use in Poultry Production and Its Effects on Antibiotic Use in Poultry Production and Its Effects on Bacterial Resistance.

- Gardner, I., Byrne, B. A., Leon, M., Ovalle, M. V, Tafur, M. A., & Miller, W. (2012).
 Prevalence, Risk Factors, and Antimicrobial Resistance Profiles of Salmonella from Commercial Broiler Farms in Two Important Poultry-Producing Regions of Colombia, 75(5), 874–883. https://doi.org/10.4315/0362-028X.JFP-11-458
- Gulab, S. (2018). Understanding Consumer Attitudes Towards Antimicrobial Risk Reducing Practices.
- Ishak, M. A. (2019). Prevalence and knowledge of antibiotics misuse and resistance in poultry and livestock in Khartoum State 2 Sudan, 45-50. https://doi.org/10.4103/summ.summ
- Jifar, A., & Ayele, Y. (2018). Assessment of Knowledge, Attitude, and Practice toward Antibiotic Use among Harar City and Its Surrounding Community, Eastern Ethiopia, 2018. https://doi.org/10.1155/2018/8492740
- Johnson, S., Bugyei, K., Nortey, P., & Tasiame, W. (2018). Antimicrobial drug usage and poultry production: Case study in Ghana Antimicrobial drug usage and poultry production: case study in Ghana, (December 2017). https://doi.org/10.1071/AN16832
- KATAKWEBA, A. A. S. (2014). PREVALENCE OF ANTIMICROBIAL RESISTANCE AND.
- Martino, G. Di, Crovato, S., Pinto, A., Dorotea, T., Brunetta, R., Agnoletti, F., ... Brunetta, R. (2018). Farmers 'attitudes towards antimicrobial use and awareness of antimicrobial resistance: a comparative study among turkey and rabbit farmers resistance: a comparative study among turkey and rabbit farmers. *Italian Journal of Animal Science*, 0(0), 1–8. https://doi.org/10.1080/1828051X.2018.1504236
- Martino, G. Di, Crovato, S., Pinto, A., Dorotea, T., Brunetta, R., Agnoletti, F., ... Brunetta, R. (2019). Farmers 'attitudes towards antimicrobial use and awareness of antimicrobial resistance: a comparative study among turkey and rabbit farmers resistance: a comparative study among turkey and rabbit farmers. *Italian Journal of Animal Science*, 18(1), 194–201. https://doi.org/10.1080/1828051X.2018.1504236
- Mohammad. (2014). Research Article. Antimicrobial Resistance Pattern Aginst Evoli and Salmonella in Layer Poultry, 2(2), 30–35.