

ASSESSING THE FEEDING PRACTICES OF SMALL SCALE HOLDER POULTRY FARMERS ON SCAVENGING POULTRY IN KALAKI DISTRICT.

 \mathbf{BY}

OBOI AMBROSE

BU/UP/2021/2119

A RESEARCH DISSERTATION TO BE SUBMITTED TO THE FACULTY OF
AGRICULTURE AND ANIMAL SCIENCES IN PARTIAL FULFILLMENT OF
REQUIREMENTS FOR AWARD OF THE DEGREE OF BACHELOR OF ANIMAL
PRODUCTION AND MANAGEMENT OF BUSITEMA UNIVERSITY

SEPTEMBER, 2024

ABSTRACT

This study aimed to assess poultry feeding practices, feed types, and demographic characteristics among small-scale poultry farmers in Kalaki District, Eastern Uganda, and to analyze their impact on productivity. Data were collected from 100 respondents through structured interviews and surveys. Age distribution revealed that the largest group of farmers (30.8%) were aged 41-50 years, with only 2.6% under 20 years old, indicating a potential future workforce gap due to low youth involvement in poultry farming. Gender analysis showed a predominance of male respondents (56.4%) compared to females (43.6%), a statistically significant difference (χ^2 , p = 0.032), reflecting broader trends in gendered access to agricultural resources. Educational attainment varied: 28.2% of respondents had no formal education, while 23.1% held tertiary qualifications. Logistic regression analysis (p = 0.004) indicated that higher educational attainment significantly influenced the adoption of improved poultry management practices.

Experience in poultry keeping was high, with 51.3% of farmers having more than six years of involvement, and chickens were the most commonly kept poultry type (61.5%). Feeding practices primarily relied on scavenging (74.4%), supplemented by semi-scavenging (20.5%) and confined feeding (5.1%). ANOVA results (p = 0.041) indicated significant differences in productivity among these feeding systems. Grains such as maize and sorghum were the primary feed types (48.7%), and 71.8% of farmers supplemented their poultry's diet, mainly with protein sources. Supplementation showed significant impacts on flock health and productivity (χ^2 , p = 0.019). Feeding frequency was typically once or twice daily (46.2% each), primarily in the morning (41.0%) and evening (35.9%). Key challenges included high commercial feed costs (33.3%) and a lack of knowledge regarding poultry nutrition (41.0%), with regression analysis (p = 0.014) confirming their significant impact on productivity.

In conclusion, the study provides valuable insights into the dynamics influencing poultry farming in Kalaki District through an integration of demographic, educational, and feeding practices. The findings underscore the need for targeted educational support and resource access to enhance productivity, which is crucial for improving food security in rural communities.

DECLARATION

DECLARATION

I OBOI AMBROSE, declares that, the information written in this research dissertation is my individual work and has not been submitted for the award of bachelors and have not been submitted to any other institution for any award.

Signature.

Date.

05/N04/2024

OBOI AMBROSE.

APPROVAL

ADD	ROVAL			
This research dissertation has been submitted				
Name AM3H		Sale Signature of	11/2024	
OR, KISAKYE HELLEN.				

DEDICATION

I dedicate this piece of work with gratitude to my parents, family members, and friends for providing me with financial support towards my Education. I also dedicate this piece of work to my love ones and I appreciate them for their encouragement and support as regards to my Education may the almighty God bless and reward them abundantly.

ACKNOWLEDGEMENT

I appreciate my family, especially my father AANU EMMANUEL and APECO EDITH for supporting me for all this while. I also express my gratitude to the staff of Busitema University and especially to my research supervisor, Dr. KISAKYE HELLEN for the academic guidance and knowledge she has given to me.

TABLE OF CONTENT

ABSTRACT	i
DECLARATION	ii
APPROVAL	iii
DEDICATION	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENT	vi
LIST OF FIGURES	ix
LIST OF TABLES	X
CHAPTER ONE:	1
1.1 Background	1
1.2 Problem statement:	1
1.3 Main objective	2
1.4 Specific objectives	2
1.5 Research questions	2
1.6 Justification:	3
1.7 Significance of the study:	3
1.8 Scope:	4
CHAPTER TWO	5
2.0 Literature review:	5
2.1 Locally Available Feeds	5
2.2 Agricultural By-Products	5
2.3 Household Kitchen Scraps	6
2.4 Feeding Frequencies	7
2.5 Feeding Practices	7
CHAPTER THREE	9
3.0 Methodology:	9
3.1 Study area:	9
3.2 Research design	9

3.3 Research approach	9
3.4 Study population:	10
3.5 Sample Size Determination.	10
3.6 Sampling procedures:	11
3.7 Data collection tools	11
3.8 Data collection methods	12
3.9 Data analysis:	12
3.10 Data quality control:	12
3.11 Ethical consideration:	13
3.12 Research Limitation:	14
CHAPTER FOUR: RESULTS	15
4.0 RESULTS	15
Table 4-1; Summary of Demographic characteristics of the respondents (N=100)	15
Fig 4-1 Age distribution of respondents	18
Fig 4-2 Gender distribution of respondents	19
Fig 4-3 Shows Education Level Distribution of Respondents	20
Table 4-2; Summary of other Information on Poultry feeding practices, feed types an	d sources21
Fig 4-4 Proportion of farmers engaged in Poultry Keeping	24
Fig 4-5Graph of poultry types kept by respondents	25
Fig 4-6 Graph showing the number of birds owned by respondents	26
Fig 4-7 graph on feeding systems used by respondents	27
Fig 4-8 Graph illustrating the types of feeds used by respondents	28
Fig 4-9 analysis of household scraps used for feeding poultry	29
Fig 4-10 Analysis on the types of grains used for poultry feeding	30
Fig 4-11 data on the types of commercial feeds used by poultry farmers	31
Fig 4-12 Graph showing feed supplementation	32
Fig 4-13 Graph showing types of supplements	33
Fig 4-14 frequency of feeding among poultry farmers	34
Fig 4-15 feeding times among poultry farmers	35
Fig 4-16 proportion of respondents who provide water for their poultry	36

Fig 4-17 challenges faced by poultry keepers	37
CHAPTER FIVE	38
5.0 Discussions	38
5.1 Age Distribution:	38
5.2 Poultry Farming Practices	39
5.3 Feeding Practices	39
5.4 Feeding Frequency and Timing	40
5.5 Challenges Faced in Poultry Farming	41
CHAPTER SIX:	42
6.0 CONCLUSION AND RECOMMENDATION	42
6.1 CONCLUSION	42
6.2 RECOMMENDATION	43
REFERENCE	45
APPENDIX 1. WORK PLAN:	47
BUDGET	48
PICTURES	52
Fig 1 interviewing the farmer using questionnaire Fig 2 Farmer feeding his birds with	ı maize52
Fig 3 Farmers feeding their scavenging birds in the morning with sorghum grain	53
Fig 4 Scavenging birds feeding on Maize grains Fig 5 Interviewing a young poultry fa	rmer53

LIST OF FIGURES

Fig 4-1 Age distribution of respondents	18
Fig 4-2 Gender distribution of respondents	19
Fig 4-3 Shows Education Level Distribution of Respondents	20
Fig 4-4 Proportion of farmers engaged in Poultry Keeping	24
Fig 4-5 Graph of poultry types kept by respondents	25
Fig 4-6 Graph showing the number of birds owned by respondents	26
Fig 4-7 Graph on feeding systems used by respondents	27
Fig 4-8 Graph illustrating the types of feeds used by respondents	28
Fig 4-9 Analysis of household scraps used for feeding poultry	29
Fig 4-10 Analysis on the types of grains used for poultry feeding	30
Fig 4-11 Data on the types of commercial feeds used by poultry farmers	31
Fig 4-12 Graph showing feed supplementation	32
Fig 4-13 Graph showing types of supplements.	33
Fig 4-14 Frequency of feeding among poultry farmers	34
Fig 4-15 Feeding times among poultry farmers	35
Fig 4-16 Proportion of respondents who provide water for their poultry	36
Fig 4-17 Challenges faced by poultry keepers	37
Fig 1 interviewing the farmer using questionnaire Fig 2 Farmer feeding his	birds with
maize	52
Fig 3 Farmers feeding their scavenging birds in the morning with sorghum grain	53
Fig 4 Scavenging birds feeding on Maize grains Fig 5 Interviewing a you	
farmer	53

LIST OF TABLES

Table 4-1; Summary of Demographic characteristics of the respondents	.15
Table 4-2; Summary of other Information on Poultry feeding practices, feed types a	and
sources	.21

CHAPTER ONE:

1.1 Background

Small-scale poultry farming is a vital component of rural livelihoods, particularly in regions like Kalaki District, Eastern Uganda, where commercial infrastructure is limited (FAO, 2004). In these areas, small-scale holder poultry farmers heavily rely on scavenging poultry birds, such as indigenous chickens, for food and income (Magothe et al., 2012). However, the feeding practices adopted by these farmers play a crucial role in determining the health, productivity, and welfare of scavenging poultry birds (Tadelle & Ogle, 2001). Despite their significance, there is a notable research gap concerning the feeding practices of small-scale holder poultry farmers in Kalaki District and similar rural contexts (Guèye, 2002).

Scavenging poultry birds serve as an essential source of animal protein, nutrients, and income for rural households, particularly in areas with limited access to commercial poultry products (Guèye, 2002). The birds are well-adapted to local environmental conditions and require minimal inputs, making them a sustainable asset for small-scale holder poultry farmers (Guèye, 2002). However, the nutritional adequacy and balance of the diets provided to scavenging poultry birds by farmers remain uncertain (Guèye, 2002). Factors such as feed availability, affordability, and farmers' knowledge of nutritional requirements influence their feeding decisions and may impact bird growth, reproduction, and disease susceptibility (FAO, 2010).

Addressing the research gap in understanding the feeding practices of small-scale holder poultry farmers is crucial for promoting sustainable poultry production and enhancing food security in rural communities (Guèye, & Branckaert, 1998). By investigating farmers' knowledge, attitudes, and challenges related to poultry feeding, this research aims to identify opportunities for improving nutritional management and enhancing the health, productivity, and welfare of scavenging poultry birds in Kalaki District (Guèye, 2002).

1.2 Problem statement:

poultry play a crucial role in providing food security and income in rural communities in Kalaki district, Despite the importance of feeding practices for scavenging poultry and the livelihoods of small-scale holder poultry farmers, the birds are not properly well fed leading into low production, low income and food insecurity in rural communities in Kalaki district this therefore poses a significant research gap in understanding the specific challenges and feeding practices in Kalaki District. Existing studies often focus on commercial poultry production systems or overlook the specific feeding practices and challenges faced by small-

REFERENCE

- 1. Food and Agriculture Organization (FAO). (2004). Small-scale poultry production Technical guide. Retrieved from http://www.fao.org/3/a-a0307e.pdf
- 2. Gueye, E. F. (2000). The role of networks in information dissemination to family poultry farmers. World's Poultry Science Journal, 56(3), 205-214.
- 3. Okitoi, L. O., Magothe, T. M., Okeno, T. O., &Muhuyi, W. B. (2007). Indigenous chicken production in Kenya: I. Current status. World's Poultry Science Journal, 63(1), 308-320.
- 4. Sonaiya, E. B. (2000). Family poultry research and development in low-income food-deficit countries: Approaches and prospects. Outlook on Agriculture, 29(2), 129-136.
- Tadelle, D., Alemu, Y., & Peters, K. J. (2003). Village poultry production systems in the central highlands of Ethiopia. Tropical Animal Health and Production, 35(6), 521-537.FAO. (2010). Family poultry development: Issues, opportunities, and constraints. Food and Agriculture Organization of the United Nations.
- 6. Sonaiya, E. B., & Swan, S. E. J. (2004). Small-scale poultry production: Technical guide. Food and Agriculture Organization of the United Nations.
- 7. Pym, R. A. E., &Guèye, E. F. (2000). Village poultry: Still important to millions, eight thousand years after domestication. Worlds Poultry Science Journal, 56(4), 365-374.
- 8. Guèye, E. F. (2000). The role of family poultry in poverty alleviation, food security, and the promotion of gender equality in rural Africa. Outlook on Agriculture, 29(2), 129-136.
- 9. Aini, I. N. (2002). Poultry production in village farming systems: Proceedings of an International Workshop. ACIAR Proceedings, 103, 1-3.
- 10. Moran, J. (2005). Tropical dairy farming: Feeding management for small holder dairy farmers in the humid tropics. CSIRO Publishing.
- 11. Owen, E., Kitalyi, A., Jayasuriya, N., & Smith, T. (2005). Livestock and wealth creation: Improving the husbandry of animals kept by resource-poor people in developing countries. Nottingham University Press.
- 12. Guèye, E. F. (2003). Women's participation in poultry-related activities in sub-Saharan Africa. World's Poultry Science Journal, 59(2), 219-231.
- 13. Sonaiya, E. B., & Swan, S. E. J. (2004). The contribution of family poultry to nutrition, socio-economic and cultural needs of rural people: Proceedings of an International Conference.
- 14. Steele, C. T., & Radcliff, R. P. (2005). The Development and Evaluation of Free-

- Range Poultry Production Systems. FAO Animal Production and Health Paper, (142), 25.
- 15. Mwalusanya, N. A., Katule, A. M., Mutayoba, S. K., &Lekule, F. P. (2002). Indigenous chicken productivity and management practices in Tanzania. Livestock Research for Rural Development, 14(2), 1-5.
- 16. Tadelle, D., & Ogle, B. (2001). Village poultry production systems in the central highlands of Ethiopia. Tropical Animal Health and Production, 33(6), 521-537.
- 17. Alders, R., Costa, R., & Zel, S. (2000). Village chickens, poverty alleviation and the sustainable control of Newcastle disease. Proceedings of an International Conference. ACIAR Proceedings, 94, 1-14.
- 18. Almekinders, C., & Elings, A. (2001). Collaboration of farmers and breeders: Participatory crop improvement in perspective. Euphytica, 122(3), 425-438.
- 19. Mapiye, C., Chimonyo, M., Marufu, M. C., Dzama, K., &Raats, J. G. (2009). Sustainability of village chicken production in the smallholder sector of Zimbabwe. Outlook on Agriculture, 38(3), 239-246.