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**PRODUCTION SYSTEMS AND CONSTRAINTS TO PRODUCTIVITY OF LOCAL
CHICKEN IN ARAPAI SUB-COUNTY, SOROTI DISTRICT**

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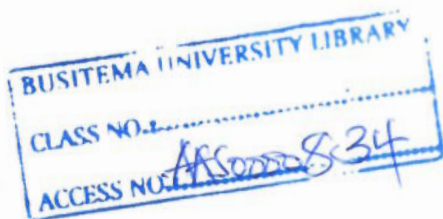
**A RESEARCH DISSERTATION SUBMITTED TO THE FACULTY OF
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DECLARATION

I, **Walugembe Apolo**, declare that this dissertation is original work and has not been submitted and presented for any academic award to any university or any other institution of learning.

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APPROVAL

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DEDICATION

I dedicate this book to my beloved parents Ms. Jane Iga and Mr. Zzimbe Iga because they were always available whenever I needed them. I love you so much. May the good Lord reward you abundantly.

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LIST OF ABBREVIATIONS

MAAIF	Ministry of Agriculture Animal Industry and Fisheries
LIFDC	Low Income Food-Deficient Countries
GDP	Growth Domestic Product
FAO	Food and Agriculture Organization
UBOS	Uganda Bureau of Statistics
SPSS	Statistical package for social science
NAADS	National Agriculture Advisory Services
PRA	Participatory Rural Appraisal

ABSTRACT

Local chickens were found in villages of Arapai Sub County but clear information was lacking regarding their socio-economic importance and production management in the area. Therefore, in this study a total of 100 households rearing local chickens in Arapai Sub County were surveyed to get base line information on characteristics of households involved in local chicken production and utilization, feeding, breeding practices, extension service delivery, disease and health management, and housing management of village chicken in addition to factors affecting local chicken production. The results revealed that free range or scavenging system is the dominant production system (85%) with only 13% housing local chicken's separately. 94% of the farmers offer supplements to their chickens. However, most of them 76% offer feed on bare ground and such feeds offered included local feeds 64% and a combination of local & commercial feeds (31%) while 5% said they use commercial feeds. The study revealed that 98% of local chicken owners in the study area experience chicken diseases in their locality. Only 47% of the farmers access extension services, the rest do not have, with 88% having contact once in a month and only 6% having contact twice a month. They said the main extension service provider is NAADS (50.0%) followed by students on outreach program from Busitema University (31%) and lastly NGOs (19.0%). The farmers also reported that disease (35%) and parasites (27%) as the major constraints to local chicken production. The productivity of scavenging birds in Arapai Sub County can be enhanced by relatively simple changes in management techniques that promote improvement in productivity and reduce mortality. Simple house construction especially designed for chicks using locally available materials can easily save. Disease prevention mechanisms and designing appropriate vaccination programs will undoubtedly reduce mortality. Little technical support on farmers' experience or knowledge of supplementary feeding and watering could improve productivity of chickens too.

CHAPTER ONE

INTRODUCTION

1.1 Back ground

The poultry sector in Uganda comprises a number of different types of birds including chicken, turkeys, ducks, geese, ostriches and pigeons. Chicken are however the type with the most important economic significance and impact for household livelihoods, (MAAIF & UBOS, 2009).

In rural communities, free range chickens contribute significantly to the livelihoods of farmers (Kirunda *et al.*, 2003). However, rural poultry does not rate highly in the mainstream national economies because of the lack of measurable indicators of its contribution to macroeconomic indices as Gross Domestic Product (GDP). Economic evaluation of livestock at household and national levels is complicated by the multiple functions of livestock in the economy. Moreover, estimating the value of rural poultry is even more difficult than for other livestock because of the lack of reliable data (Kitalyi, 1998). Indeed, (Ssewanyana *et al.*, 2003b) remarked that scientific reports or investigations on local poultry in Uganda are scarce. The high illiteracy rate among local poultry keepers complicates record keeping that would have served to evaluate the sector.

The poultry industry in Uganda is composed of 23.5 million birds (MAAIF, 2008) and composed of 3.7 million (15.8%) exotic/crossbred chicken and 19.8 million (84.2%) local ones: and estimated to consist mainly of chicken comprising of 10 million birds. Over 90% of Ugandan chickens are indigenous stock reared under the Backyard system (Kirunda *et al.*, 2011), producing an average of 50 eggs per hen per year. The eggs are either for hatching chicks or used as table eggs.

In Ugandan, Livestock production, as one component of agriculture, contributes 17% of AGDP, representing about 9% of total GDP (Byarugaba, 2007, Busuulwa. 2009). The poultry industry in the country is currently composed of almost 40 million birds (UBOS 2010), majority (87.7%) of which, are indigenous chickens. The Eastern Region has the highest share of nearly 7.4 million birds (37.3%). (National livestock report, 2008), indicated that Poultry had the largest population constituting 54% of the livestock population (286,230) meaning that almost every household keeps poultry.

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