



MANAGEMENT OF GUINEA FOWL UNDER CAPTIVITY IN BAUCHI STATE – A CASE STUDY OF MISAU LOCAL GOVERNMENT AREA

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Abstract

An attempt was made to study the management of guinea fowl under captivity by local farmers in Misau Local Government Area of Bauchi State. Data were collected using a questionnaire from five districts of the Local Government Area. Ten local farmers were randomly selected each of the five districts. The study focused on the management, feeding, housing, and disease control for guinea in the study area. The result showed that 76% of the farmers practiced extensive system of management. 46% of them use mud and thatched roofs for housing. Most of the farmers (56%) keep guinea fowl commercial, support and hobby (CS &H). The result also revealed that 72% of the respondents provide supplementary feeding for the birds, 62% of them do not provide accommodation for the birds. 86% each were recorded by the farmer for disease outbreak and mortality. Guinea fowl rearing in the rural area should be encouraged by the Government through veterinary services and developed feeds using local feed materials to increase the productivity of guinea fowl under captivity

Introduction

It is obvious that the animal protein intake of most Nigerians is far below the minimum requirement of as recommended by FAO (2012). The meat production from cattle, sheep, goat and swine is unlikely to meet the demand for protein in developing countries like Nigeria due to their long generation intervals (Aduku and Olukosi, 1990). Poultry species have relatively shorter generation intervals and therefore a faster rate of multiplication. Poultry has been reported to be second to none in their ability to produce more edible meat per unit of live weight (Elkan et al, 1995). Guinea fowl is a poultry specie on which systemic studies have been limited. It is indigenous to Africa. The guinea fowl (*Numida maleagris galeata*) is a local avian specie commonly found in the Northern Savana areas of Nigeria. It is usually brought from the wild by the local farmers who tame and keep them as a back yard poultry for meat and egg (Ayeni et. Al., 1985). This study was intended to look at how guinea fowl under captivity are managed particularly with regard to nutrition and feeding, housing and disease control in Misau Local Government Area of Bauchi State.



Materials and Methods

A structural questionnaire was drawn and administered to owners of guinea fowls in the five districts of Misau Local Government of Bauchi State. The districts were Misau, Hardawa, Dagauda, Dambam and Jalam. Data were collected from one hundred (100) randomly selected farmers with twenty (20) from each district of the Local Government Area. Parameters investigated were mean age of the respondents, educational qualification, size of the family, types of animal kept, method of management, commonly used feed, cost of feeds, common diseases and mortality. Data were collected from two main sources; Primary and secondary. The primary sources involved the personal administration of the questionnaires. The secondary sources involved the information from visit to market and consultation of text and publications. The major variables selected for measurement were age and farming experience, family size housing for the birds, methods of management, disease management and mortality.

Results and Discussion

The distribution of the respondents according to age, educational level and experience is presented in Table 1. Majority of the people that keep guinea fowl aged between 31 – 60 years indicating that it is an adult business. The educational level was observed to be generally low among the respondents. While 48% of them were illiterate, those who had primary and adult non-formal education consist of 8% and 20% respectively. Those with post primary and higher education made up 10 and 14 % respectively. This implies that educational level is not a barrier to guinea fowl rearing. The experience of the respondents indicated 2% has 16-20 years while 90% has 1-15 years of experience. The distribution of respondents according to reasons for keeping Guinea Fowl, management practice and shelter provision for guinea fowl is shown in Table 2. Three main reasons were discovered as to why the respondents keep Guinea Fowl. These are Wealth (Commercial), Support and Hobby . The survey revealed that 56% of the respondents kept Guinea Fowl for both Commercial, Support and Hobby (C, S & H) and 32 % of them kept Guinea Fowl for Commercial and Support (C & S) only. The system of management employed by the respondents showed that 76% used extensive system of management by allowing the birds on a free range, 20% used semi-intensive system only while 4 % of the respondents, however, maintained guinea fowl on an intensive system where the birds are provided with shelter (confined) and feed and water are provided. The high percentage (76%) of respondents that use the extensive system of management as observed in this study agrees with the report of Ayeni, (1983) that guinea



fowl under captivity performed better when kept on free range (Extensive system of management). From the total respondents who provided shelter for their guinea fowl, 46% used mud and grasses, while those who used mud & zinc and corn stalk & grasses constituted 10 % each. The high percentage (46%) of respondents who used mud and grasses for house construction could be attributed to the fact that these materials are cheaper and readily available in the area under study. The distribution of respondents according to number of birds, provision of feeds, shelter, disease outbreak and mortality are as indicated in Table 3. 76% and 18% kept 1-20 and 21-40 number of birds respectively. 72% provided supplementary feeds to their birds. 38% of the respondents provide shelter for the birds while 62% did not. This is seen in the disease outbreak where the respondents who do not provide shelter (62%) recorded high disease prevalence (86%) as against the respondents who provide shelter (38%) recording low disease (14%) outbreak. High mortality of 86% was observed in respondents that did not provide feeding and shelter for their birds.

Conclusion and Recommendation

The findings from this study revealed that it is easy and cheaper to manage guinea fowl on a free range particularly in terms of shelter and feeding. The major problem observed is that of disease outbreak which causes high mortality rate.

It is hereby recommended that the rural dwellers should be encouraged, through the extension services, to keep guinea fowl as it does not require intensive capital. Veterinary assistance should be provided to the existing farmers to reduce disease prevalence and increase productivity of the birds.

Table 1. Distribution of the Respondents According to Age, Educational Level and Experience.

Age (Yrs.)			Educational Level		Experience			
Age	Freq.	%	EDL	Freq.	%	EXP (Yrs)	Frequency	%
20-30	6	12	Illiterate	24	48	1-5	21	42
31-40	27	54	Primary	4	8	6-10	14	28
41-50	11	22	Adult & non formal	10	20	11-15	10	20
51-60	6	12	Post primary	5	10	16-20	4	8
--	--	--	High level	7	14	21-25	1	2
Total	50	100		50	100		50	100

Table 2. Distribution of the Respondents According to Reason for Keeping Guinea Fowl, Management and materials used for shelter Provision for Guinea Fowl



Reasons	Freq.	%	Management.	Freq.	%	Materials Used For Shelter	Freq.	%
CS&H	28	56	Extensive	38	76	Mud & grass	23	46
C&S	16	32	Intensive	2	4	Mud & zinc	10	20
C&H	1	2	Semi-intensive	10	20	Cornstalks & grasses	10	20
S&H	3	6	--	--	--	Wood, Zinc & Wire mesh	7	14
S	1	2	--	--	--	--	--	--
H	1	2	--	--	--	--	--	--
Total	50	100	--	50	100	--	50	100

Table 3. Distribution of Respondents According to Number of Birds, Provision of Feeds, Shelter, Disease Outbreak and Mortality.

	No. of Birds			Feed Provision			Shelter Provision			Disease Outbreak			Mortality	
Birds	Freq.	%	Feed	Freq.	%	Shelter	Freq.	%	Disease	Freq.	%	Mortality	Freq.	%
1-20	38	76	Feeding	36	72	Yes	19	38	Yes	7	14	Yes	7	14
21-40	9	18	No feeding	14	28	No	31	62	No	43	86	No	43	86
41-60	2	4	--	--	--	--	--	--	--	--	--	--	--	--
60 & above	1	2	--	--	--	--	--	--	--	--	--	--	--	--
Total	50	100		50	100		50	100		50	100		50	100

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