

ENTRY-LEVEL SKILLS REQUIRED BY SECONDARY SCHOOL GRADUATES FOR PROFITABLE GUINEA FOWL DOMESTICATION AND PRODUCTION IN TARABA STATE

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<https://doi.org/10.37602/IJREHC.2025.6406>

ABSTRACT

The study was conducted to determine the entry-level skills required by Secondary School graduate for profitable Guinea Fowl Domestication and Production in Taraba State. Four purposes and four research questions guided the study. The study employed survey research design; the population of the study was 110 made up of Registered 70 farmers and 40 Agricultural Extension workers in Taraba state. Purposive sampling technique was used to select 40 farmers and 30 Extension workers that are currently involved in Guinea fowl farming. A 58 items structured questionnaire was developed to collect data for the study. The instrument was validated by three (3) experts. Chronbach alpha (α) method was used to determine the internal consistency of the questionnaire items and a Coefficient of 0.81 was obtained. The questionnaire was administered by the researchers with the help of four (4) research assistance. Data collected were analyzed using descriptive statistics of mean and standard deviation. The study found out that seven (7) entry level skills in Guinea fowl domestication, twenty-seven (27) skills in Guinea fowl management, ten (10) skills in Guinea fowl processing and eight (8) skills in marketing of Guinea fowl produce were required by Secondary School graduate for profitable Guinea fowl domestication and production in Taraba state. It was recommended that the all fifty-two (52) identified skills for Guinea fowl production be packaged into training modules to train Secondary School graduate at the various skills acquisition centers in the state.

Keywords: Entry-Level skills required, profitable, Guinea fowl, Domestication and production

1.0 INTRODUCTION

Guinea fowl according Anne (1999) are indigenous Africa birds that derive their name from the West Africa country of Guinea. The author stated further that Guinea fowl are very difficult to be tamed because they are completely wild. Moreki and Radikara (2013) stated that Guinea fowl originated from the coast of Guinea in Africa but its domestication and commercialization is still very poor due to the following challenges in Guinea fowl rearing; poor housing,

inadequate technical and Extension services, inadequate feeding, high cost of inputs supply, high keet motility, poor health management system, high rate of predation, breeding challenges, poor marketing and inadequate research. Moreki in Moreki and Radika (2013) stated that several studies have shown that in most Africa countries, Guinea fowl are reared mainly under extensive (free range or traditional method). In spite of the limitation and challenges to domestication and rearing of Guinea fowl, Avorny (2016) stated that Guinea fowls are ready source of protein (eggs and meat), the meat contains about 28% proteins. Teye and Adam (2000) stated that apart from main sources of proteins Guinea fowl are very important in the social cultural lives of many tribes in Africa; the birds are exclusively used for annual festival, religious sacrifices and certain funeral rites.

Manda (2024) state that Guinea Fowl are low maintenance amazing birds that contains high proteins content in the meat and egg the author continues that Guinea fowl provide pest control as it patrols the farm looking for beetles, ticks and ant to pick up. ; the birds also serve as a security alert in the farm. Debnath et al (2018) stated that Guinea fowls are reared for its gamey flesh and eggs since it has the taste similar to other game birds. The authors continue that its meat is lean, rich in essential fatty acid, having fine flavor resembling to wild birds, the meat and bone ratio is excellent, high yield of meat rich in vitamins and low cholesterol content. In this study, Guinea fowl are wild birds scavenging for feed by roaming around the bush in Taraba state, these birds can be domesticated, managed and produced by Secondary School graduate for profitable income generation.

Domestication according to Collins (2025) is the process of bringing wild animals or plants under control and uses them to produce food or as pets. In the view of vocabulary.com (2025) domestication is the taming of an animals and training it to be a pet for work on the farm. Also Merriam-Webster (2025) stated that domestication is the process of taming an animals and keeping it as a pet on the farm. It is the act or process of the adaptation of a plant or animals from a wild or natural state to live in close association with humans. Domestication in this study is the process of going into the bush by Secondary School graduate to catch Guinea fowl and tame, manage and continue in its production in Taraba state.

Production as defined by studyfinance.com (2025) is the process of making or manufacturing goods and product from raw materials or components. Also FCT EMIS (2025) stated that the term production refers to the creation of goods and services to satisfied human wants, moreover, Ubah and Uko (2017) defined production as the process and methods employed in the transformation of local feedstuffs by the use of human knowledge and skills needed to create an output (poultry feed). Production in the context of the study is the process of raising and managing Guinea fowl from the wild guinea fowl domesticated by the Secondary School graduate in Taraba state. In order for Secondary School graduate to be effective in the production of guinea fowl, they required skills in its domestication and production.

Skills according to Okorie in Owoso et al (2018) is the expertness in practical ability, dexterity and tact, the author stated further that to possess a skill is to demonstrated the habit of acting, thinking and behaving in such a specific activity in such a way that the process becomes natural to the individual through repetition or practice. In addition, Lawal (2016) stated that skills are the various abilities needed in carrying out various operation in commercial production of pigeon pea (*cajanus cajain millisp*) in south west-Nigeria. Onipede et al (2015) described entry

level skills as the basic activities in cocoa plantation production enterprise needed to prepare Secondary School graduate for entering the cocoa plantation enterprises. Entry level skills in the study are the various abilities or capability in the domestication and production of Guinea fowl required by Secondary School graduate for entering profitable guinea fowl production in Taraba state.

Secondary School graduate are boys and girls within the age bracket of 15 to 22 years that have completed six years Secondary School Education in Taraba state but they have not been able to secure admission to tertiary institution, neither are they profitably employed on any job as a result they become idle and fully depended on others to meet their needs. As the needs of these young people becomes more pressing, they tend to get their needs met by any means and this often lead them to get involved in social vices such as stealing, rapping robbery, kidnapping, drug abuse and other criminal activities thereby they constitute a nuisance to the entire community in Taraba state. The attention of these young School leavers could be shifted to profitable production by empowering them to acquire skills in domestication and production of Guinea fowls that are very common around the bush in Taraba state.

1.1 Purpose of the Study

The general purpose of the study was to determine the entry level skills required by Secondary School graduate for profitable guinea fowl domestication and production in Taraba state. Specifically, the study sought to: -

1. Determine the entry level skills in domestication of guinea fowl required by Secondary School graduate in Taraba state
2. Ascertain the entry, level skills in management of guinea fowl required by Secondary School graduate in Taraba state
3. Identify the entry level skills in processing of guinea fowl produce required by Secondary School graduate in Taraba state.
4. Determine the entry level skills in marketing of guinea fowl produce and products required by Secondary School graduate in Taraba state.

1.2 Research Questions

The following research question guided the study

1. What are the entry level skills in domestication of guinea fowl required by Secondary School graduate in Taraba state?
2. What are the entry level skills in management of guinea fowl required by Secondary School graduate in Taraba state?
3. What re the entry level skills in processing guinea fowl produce required by Secondary School graduate in Taraba state.
4. What the entry level skills in marketing of guinea fowl produce required by Secondary School graduate in Taraba state.

2.0 METHODOLOGY

The study adopted a survey design. Usoro et al. (2023) stated that survey design is flexible for collecting data from large and heterogeneous population. The design is appropriate for the study as the study seek to collect that from farmers and Agricultural Extension Officers. The population was 110 made up of 70 farmers and 40 Agricultural Extension Officers in Taraba State. Purposive sampling technique was used to select 40 farmers and 30 extension workers that currently involved in guinea fowl production. A 52 items structured questionnaire developed from extensive review was used to collect data for the study. The questionnaire named skills required in Guinea Fowl Domestication and production (SRGFDP) had two (2) parts, parts A solicit information on personal data of the respondents while part B elicit information on the skills in guinea fowl domestication and production. Part B of the questionnaire had four response options of highly required (HR), moderately Required (MR), Slightly Required (SR) and Not Required (NR) with correspondent value of 4, 3, 2 and 1 respectively. The questionnaire was validated by three (3) experts. The validates were requested to removed ambiguous or unnecessary words or statement and replaced with appropriate words. Chrombach Apha (α) method was used to determine the internal consistency of the instrument and a coefficient of 0.81 was obtained. The questionnaire was administered on the respondents by the researchers with the help of four (4) research assistants. All the 70 copies (40 copies on the farmers and 30 copies on extension workers were returned).

Data collected was analyzed using descriptive statistics of mean and standard deviation. The arithmetic mean of the response options gives 2.50 therefore 2.50 was used as cut-off point, any items with a mean of 2.50 or above was regarded as required while any item with a mean value less or below 2.50 was regarded as not required. Decision on standard deviation was that any item with low standard deviation shows that the respondents were not too far from the mean and from one another in their responses while any item with high standard deviation indicated that the respondents were far from the mean in their responses.

3.0 RESULTS

The result of the study is present in table 1-4

Table 1: Mean ratings of the responses of Farmers and Agricultural Extension workers on skills in domestication of guinea fowl required by Secondary School graduate in Taraba state.

		N=70		
	Skills in Domestication of Guinea Fowl	\bar{x}	SD	Remark
1	Locate Wild Guinea Fowl in the bush.	3.32	0.73	RQ
2.	Survey the environment where guinea fowl are located to ascertain where they stay in the night.	3.42	0.57	RQ
3.	Purchase the local traps to catch wild guinea fowl	3.34	0.71	RQ
4.	Set traps and spread the net secretly in the environment where the Guinea fowl are located.	3.41	0.53	RQ
5.	Peak up the Guinea fowl caught by the traps and the net.	3.36	0.55	RQ
6.	Put the Guinea fowl in the prepared cage for rearing.	3.26	0.56	RQ
7.	Trim Guinea fowl feathers to prevent or avoid flying away by the birds.	3.14	0.54	RQ

Key: \bar{x} = Mean, SD Standard Deviation, RQ=Required, NRQ=Not Required

Table 1: revealed that the mean values of all the seven (7) skill items ranges from 3.14 to 3.42 and were above the cut-off points or 2.50 this indicated that all the seven skills items were required by Secondary School graduates for domestication of guinea fowl. Table 1 also revealed that the standard deviation values of all the seven (7) skill items ranges from 0.53 to 0.73 and were low, this indicated that the respondents were not far from the mean and from one another in their responses and this gave credence to the value of the mean.

Table 2: Mean ratings of the responses of Farmers and Agricultural Extensions workers on skills in management of guinea fowl required by Secondary School graduates in Taraba state

		N=70		
	Skills in Management of Guinea Fowl	\bar{x}	SD	Remark
1	Select appropriate cage size for rearing of guinea fowl.	3.02	0.93	RQ
2.	Construct cage according to selected size.	3.14	1.09	RQ
3.	Prepared the cage floor with welded wire.	3.31	1.00	RQ
4.	Cover the top of the cage with iron sheet.	3.23	0.91	RQ
5.	Place cage in a safe and elevated place within the residential compound.	3.22	1.10	RQ
6.	Use guinea flow hunch as alternative cage.	3.10	0.64	RQ
7.	Maintain an average guinea fowl hunch of about 120mm x 60 mm.	3.27	0.86	RQ
8.	Place fine wood shaving in the cage as litters	3.12	0.60	RQ
9.	Put wood shaving or dry sound in a tray or container for bird's bath.	3.47	0.63	RQ
10.	Put at least two (2) pets bowl in a cage.	3.01	0.72	RQ
11.	Put 6 to 8 guinea fowl in a cage to ensure guinea fowl comfort.	3.26	0.56	RQ
12.	Put 6 hens and 2 cocks in cage for egg production.	3.03	0.93	RQ
13.	Separate Feeders from drinkers by hanging the feeders on wire mesh of the cage to avoid feed contamination.	3.02	0.86	RQ
14	Provide adequate light in the cage on daily basis.	3.03	0.91	RQ
15.	Disinfect guinea fowl cage at intervals to guide against disease.	3.04	0.95	RQ
16.	Clean guinea fowl cage environment on regular basis.	3.15	0.22	RQ
17.	Change cage litters on regular interval.	3.17	0.39	RQ
18.	Provide foot dips, clean and disinfected rubber foot wares at the entrance of guinea fowl house.	3.16	0.11	RQ
19.	Identify guinea fowl feed requirement at each stage of development.	3.11	0.11	RQ
20.	Feed guinea fowl to speciation regularly basis.	3.13	0.58	RQ
21.	Provide water in the drinkers on regularly basis.	3.41	0.86	RQ
22.	Keep record of feeding appropriately.	3.30	0.92	RQ
23.	Observe guinea fowl for signs of nutrients deficiency.	3.32	1.15	RQ
24.	Observe guinea fowl closely for any symptoms of disease.	3.61	0.61	RQ

25.	Diagnose any guinea fowl ease for prompt and proper treatment.	3.50	0.51	RQ
26.	Isolate sick guinea fowl from healthy one's.	3.25	0.60	RQ
27.	Treat sick guinea fowl for quick recovery.	3.66	0.26	RQ

Key: \bar{x} = Mean, SD Standard Deviation, RQ=Required, NRQ=Not Required

Table 2 revealed that the values of all the twenty-seven (27) skill items range from 3.01 to 3.66 and were above the cut-off points of 2.50, this indicate that all the (27) skill items were required by Secondary School graduate for management of guinea fowl. It was also revealed in table 2 that the standard deviation of all the 27 skill items ranges from 0.11 to 1.15 and were low, this indicated that the respondents were not far from the mean and from one another in their response and this added credibility to the value of the mean.

Table 3: Mean ratings of the responses of Farmers and Agricultural Extension Workers on skills required by Secondary School graduate in guinea fowl processing

		N=70		
	Skills in Processing of Guinea Fowl	\bar{x}	SD	Remark
1	Identify mature guinea fowl for slaughtering.	3.13	0.63	RQ
2.	Slaughter mature guinea fowl birds for meat (Chicken).	3.30	0.60	RQ
3.	Processed the guinea fowl meat by smoking and sun- dry.	3.32	0.73	RQ
4.	Cook and fry guinea fowl meat.	3.27	0.93	RQ
5.	Add sausage to guinea fowl meat.	3.02	0.99	RQ
6.	Roast guinea fowl meat.	3.33	0.95	RQ
7.	Provide storage facilities and store guinea fowl product awaiting markets.	3.40	1.00	RQ
8.	Feed live and mature guinea fowl awaiting market.	3.21	0.17	RQ
9.	Feed guinea fowl keets awaiting market.	3.27	0.86	RQ
10.	Grade guinea fowl and its products for market.	3.10	0.15	RQ

Key: \bar{x} = Mean, SD Standard Deviation, RQ=Required, NRQ=Not Required

Table 3 revealed that the mean value of all the ten (10) skill items on processing of guinea fowl ranges from 3.02 to 3.40 and were above the cut-off points of 2.50, this indicated that all the 10 skills items were required by Secondary School graduate for processing guinea fowl. It was revealed in table 3 that the standard deviation of all the 10 items ranges from 0.60 to 1.00 and were low, this indicated that the respondents were not far from the mean and from one another in their responses, this added credence to the value of the mean.

Table 4: Mean ratings of the responses of Farmers and Agricultural Extension workers on the skills required by Secondary School graduate in marketing of guinea fowl and its products.

		N=70		
	Skills in Marketing of Guinea Fowl and its products	\bar{x}	SD	Remark
1.	Locate market for the sale of guinea fowl and its products.	3.29	0.71	RQ

2.	Advertise guinea fowl and its products for sale to promote patronage.	3.43	0.60	RQ
3.	Fix prices for different grades of guinea fowl and its products.	3.20	0.51	RQ
4.	Package guinea fowl and its products for market.	3.14	0.95	RQ
5.	Select the means of transporting guinea fowl and its products to customers.	3.10	0.30	RQ
6.	Distribute guinea fowl and its products to customers at an agreed place.	3.03	0.91	RQ
7.	Sale guinea fowl and its products for maximum profit.	3.45	0.20	RQ
8.	Keep accurate record of sale of guinea fowl and its product.	3.15	0.15	RQ

Key: \bar{x} = Mean, SD Standard Deviation, RQ=Required, NRQ=Not Required

Table 4 revealed that the mean values of all the eight (8) skills items range from 3.03 to 3.45 and were above the cut-off point of 2.50, this indicated that all the eight (8) skills items were required by Secondary graduate for marketing of guinea fowl and its products. Table 4 also revealed that the standard deviation of all the eight (8) items ranges from 0.15 to 0.95 and was low, this indicated that the respondents were not far from the mean and from one another in their responses and this added credibility to the value of the mean.

4.0 DISCUSSION AND FINDINGS

The study found out that Secondary School graduate in Taraba state required: seven (7) skills items for domestication of guinea fowl, twenty-seven (27) skills items for management of guinea fowl, ten (10) skills items for processing of guinea fowl and eight (8) items for marketing of guinea fowl and its products. The findings of this study were in agreement with the findings of Agbo et al (2020) in a study carried out on capacity building needs of agricultural science teacher in teaching broilers production in Secondary Schools for economic recovery in Benue State where it was found out that agricultural science teachers required capacity buildings in teaching. Seventeen (17) items in brooder housing, seventeen (17) items in brooding of broilers, fifteen items (15) in management of feed and feeding and twenty (20) items in health management of broiler production for economic recovery in Benue State. Also, the findings of this study on skills required by Secondary School graduate in guinea fowl domestication and production in Taraba state was in consonance with the findings of Ejiofor (2017) in a study carried out on skills required by youths for employment in green jobs (organic farming and sustainable forestry management) in Anambra state, Nigeria. It was found out in the study that youths in Anambra state required twelve (12) skills in organic farm and twelve (12) skills in forestry management for employment in green jobs.

The findings of this study were corroborated by the findings of Abubakar et al (2020) in a study carried out on capacity building needs of Agricultural Education lecturers in crop improvement in instructional delivery in Colleges of Education in Northern Nigeria. it was found out in the study that lecturers of Agricultural Education in Colleges of Education in the Northern State of Nigeria needed capacity building in seventeen (17) items on medelian genetics for crop improvement delivery and fourteen (14) items on genetic variability for crop improvement delivery. Moreover, the findings of this study was supported by the findings of Onipede et al

(2024) in a study carried out on required capacity buildings by Secondary School graduate in profitable sesame production for sustainable national development in a depressed economy where it was found out that Secondary School graduate in Gombe State required capacity buildings in nineteen (19) planning skills in sesame production, twelve (12) post planting skills in sesame production and eleven (11) processing and marketing skills as sesame produce and products.

5.0 CONCLUSION

The study concluded that Secondary School graduate in Taraba state required fifty-two (52) skills items in profitable domestication and production of guinea fowl in the state.

5.1 Recommendation

Based on the findings of this study, it was recommended that the state government should package the fifty-two (52) identified skills in domestication and production of guinea fowl to modules and use it to train the Secondary School graduate at the various vacation centers in the state.

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