



DETERMINATION OF SKILLS REQUIRED IN DUCK PRODUCTION FOR IMPROVED STANDARD OF LIVING AMONG YOUTHS IN EBONYI AND ENUGU STATE, NIGERIA.

¹Ochuema, A. A. ²Wever, D. G and ³Ngbongha. I. O.

¹Department of Pre –Primary Education, Federal College of Education, Obudu, Cross River State, Nigeria

²Department of Agricultural Education ,Joseph Sarwaun Tarka University, Makurdi, Benue State, Nigeria

(Corresponding Author, Ochuema, A.A, agnesochuema@gmail.com)

ABSTRACT

The stud determines the skills required in duck production for improved standard of living among youths in Ebonyi and Enugu, Nigeria. Questionnaire Survey research design was used for the study. Three objectives, three research questions and two hypotheses were used for the study. The population for the study was 6,594 comprising 6,347 poultry farmers and 247 extension agents. The sample size for the study was 377 which was determined using taro Yemeni formular the instruments for data collection was a structured questionnaire titled: Duck Production Skills for improved standard of living Questionnaire (DPSFISLQ). The instrument was face and content validated by five (5) experts, two experts from Agricultural Education, one expert in poultry production- Department of Animal Production, one expert in Mathematics Education and another in Test Measurement and Evaluation- Departments of Mathematics Education all from Joseph Sarwuan Tarka University. To ensure the reliability of the instruments it was trial tested on 30 respondents comprising 25 poultry farmers and 5 agricultural extension agents from Benue state. Data were collected and analysed using Cronbach alpha with a reliability index of 0.83 indicating that the instruments were reliable. A total of 377 copies of the questionnaire was administered to the subjects were administered to the respondents with the help of five trained research assistant but only 358 were retrieved which was used for data analysis. The questionnaire was on 4-point response options of Highly Required (HR=4), Moderately Required (MR=3), Slightly Required (SR=2) and Not Required (NR=1). Mean and standard deviation was used to answer research questions while t-test was used to test the null hypotheses at .05 level of significance. In answering the research questions, a score of 2.50 and above was regarded as required while less than 2.50 was regarded as not required. On the other hand, in testing the hypotheses where the p-value of 0.05 was equal or less than the alpha value, the null hypothesis was rejected otherwise accepted. Based on the findings of the study it was concluded that youths in Ebonyi and Enugu states, Nigeria require skills in feeding, processing and marketing for improved standard of living in duck production. And it was therefore recommended that the Government through the extension agents can organize retraining programmes for the youths in the feeding skills in order for them to become self-reliant in the occupation for better improved standard of living.

Keyword: Skills in Duck production, Improved Standard of Living, Youths, Ebonyi State , Enugu State



1.0

INTRODUCTION

The performance of every individual in any given task including the youth is tied to the level of skill such an individual acquired. Skill therefore is the abilities and expertise that enable individuals to perform specific tasks effectively (Armstrong, 2021). Skill is the habit of acting, thinking and behaving in specific activity in such a way that the process becomes natural to the individual through practice (Akaa, *et al* 2023). According Wever and Obiyai, (2019) skills are classified into the following: technical skills, human skills, conceptual skills, Occupational skills, cognitive skills, manipulative/psychomotor skills, communication skills etc. All these skills are needed for effective duck production.

Duck production requires a combination of technical and managerial skills to ensure efficient farming operations. Adeola and Ojo (2019), listed requisite skills for duck production to include knowledge of selecting high-quality breeds for better productivity and disease resistance. Skills are also required for feeding and to meet the dietary needs of ducks to ensure optimal growth and egg production (Smith and Jones, 2020). Housing and farm management skills to construct proper housing to protect ducks from harsh weather and predators (FAO, 2021). These skills are not limited to the above but also encompass health and marketing in identifying and treating common duck diseases to prevent outbreaks and have an understanding of market trends and pricing strategies to maximize profitability (Nguyen and Tran, 2018; Rahman *et al*, 2022). It is important that youths who desire to embrace duck farming acquire the requisites skills. These skills can be gotten from poultry farmers who specialize in poultry production. These skills can also be acquired from agricultural extension agents who work with farmers to improve their knowledge and to embrace innovative farming methods for higher productivity. Farmers who are already into the duck farming venture and have acquired vast knowledge that can be useful to youths wishing to venture into duck farming. When the skills are learnt from experienced farmers and extension agents, it will tremendously help them to successfully go into duck farming in order to generate income.

Ducks belong to the family *Anatidae* within the order *Anseriformes*, depending on the specific species. Ducks are believed to have evolved from ancient waterfowl ancestors during the late cretaceous period. Ducks are characterized by webbed feet and streamlined bodies adapted for swimming and diving. The evolution of specialized anatomical features, such as waterproof plumage and oil glands, enable ducks to thrive even in aquatic habitats.

Ducks encompass a diverse range of genera and species, each with its own unique scientific classification. The common domestic duck is scientifically called *Anas*



platyrhynchos, it is one of the most well-known species within the duck family. This scientific name refers specifically to the Mallard duck, which is widely distributed and has contributed genetically to many domestic duck breeds through hybridization and selective breeding (Schiavone *et al*, 2017). Other duck species have different scientific names based on their genus and species classification. For example, northern pintail *Anas acuta*, wood duck *Aix sponsa*, mandarin duck *Aix galericulata*, and muscovy duck *Cairina moschata*. Duck production can be practiced under different systems of animal production depending on the availability of capital or the individual's level of wealth. Intensive system of duck production is capital intensive and entails that housing, feeds, medication and other management practices are put in place for the birds. Adeosun and Owoade (2020) opined that intensive system of duck production is both capital and labour intensive. Another system of duck production is the extensive system. It is one where the ducks are allowed to roam about in search of feeds and water. There is relatively low capital investment with very high returns on investment. The system also has some of its shortcomings as there is low productivity and the birds could be lost to theft and predators. Semi-intensive system of poultry management is mid-way intensive and extensive systems.

Duck farming is gradually gaining attention because of the advantages it has over chicken farming. For instance, ducks are more hardy, adoptable and less susceptible to diseases than chicken (Drake *et al*, 2019), and ducks have efficient feed conversion ability. A comparative analysis by Demirel *et al* (2016) and Rouvier *et al* (2019) shows that pekin ducks for example have superior growth rates, feed efficiency and carcass characteristics compared to chicken (broilers). Nutritionally, duck meat is rich in protein, essential amino acids such as phenylalanine, fats, iron, zinc, phosphorus and B vitamins (B6 and B12). Duck meat is also rich in omega-3 fatty acids which support cardiovascular health by reducing inflammation, lowering blood pressure and improving lipids profiles (Ganesan and Martinez, 2018). Ducks also have cultural significance among the people of Akwa-Ibom State. There is high preference for duck eggs over chicken eggs because of their jumbo sizes. Evidence has shown that khaki Campbell duck is highly prized because of their high egg-laying capabilities, producing up to 300 eggs per year (Hoftstetter *et al*, 2018). Other than the conventional duck meat and eggs, duck farmers stand to benefit from multiple income streams including the marketing of duck by-products such as feathers and downs and duck manure now that organic farming is gaining more attention. The youths in Akwa Ibom can prosper in the duck production as a source of



income if only they possess the required skills. And these skills when properly utilized improved their standard of living.

It is on this note that Sen (2016) opined that standard of living is a type of freedom, i.e. to be free to do something, the capability to live well for a certain socio-economic class in a certain geographical area. While Poduzov, (2018) observed that standard of living is an economic provision or 'opulence', which measures the amount and quality of commodities that the individual is free to use. Therefore, for duck farmers to have a good standard of living they must improve upon the production practices identified by the youth in the study area.

A youth is viewed as one who has transited from the childhood to adult stage. The United Nations, in **Obilor** (2020) opined that youth is a transitional period from childhood dependence to adulthood independence and awareness of our interdependence as members of a community. Youth is also seen as people who are within the age bracket of 18-29 years. In Nigeria, a youth is any young male or female who falls within the active age bracket of 18-35 years (Islamic Development Bank- IDB, 2019). These Youth form the greater part of labour force who are expected to be actively involved in duck production.

In Ebonyi and Enugu States youth form the majority of the population and are willing to try something new in order to live a good life nevertheless, they are confronted with many challenges including unemployment. Unemployment and economic dependency among youths in South-South Nigeria remains a significant challenges, despite successive governments frantic attempts to ameliorate the plight of the youths by establishing Youth Ministry, and putting in place Social Intervention Programmes (SIP) like Sure-P under President Goodluck Jonathan's administration and N-power, by the Mohamadu Buhari led civilian administration and the region's rich agricultural resources but to no avail. Duck production presents a viable opportunity for self-reliance, given its economic benefits, nutritional value, and adaptability to various environmental conditions. However, many youths lack the necessary technical skills required for successful duck farming, leading to limited participation. A major barrier to youth engagement in duck production is the lack of access to information on essential skills such as housing, management practices, feeding, disease management, processing, preservation, and marketing of duck products for income generation. Without these skills, youth farmers struggle with inefficiencies, losses due to high mortality, and poor market access, making duck farming less attractive as a means of improving the standard of living. However, identifying the essential competencies needed for successful duck farming and putting them to practice increase their quality of life and improved the standard of living.



The main purpose of this study is to determine the skills required in duck production for improved standard of living among the youths in Ebonyi and Enugu State, Nigeria. Specifically, the study seeks to determine:

1. the skills in duck feeding for improved standard of living among youths in Ebonyi and Enugu State, Nigeria.
2. the skills in duck processing for improved standard of living among youths in Ebonyi and Enugu State, Nigeria;
3. the skills in duck marketing for improved standard of living among youths in Ebonyi and Enugu State, Nigeria;

The following research questions were asked and answered

1. What are the skills in duck feeding for improved standard of living among youths in Ebonyi and Enugu State, Nigeria?
2. What are the skills in duck processing for improved standard of living among youths in Ebonyi and Enugu State, Nigeria?
3. What are the skills in duck marketing for improved standard of living among youths in Ebonyi and Enugu State, Nigeria?

The following hypotheses were formulated and tested at 0.05 level of significance

1. There is no significant difference between the mean response of farmers and agricultural extension agents on the skills in duck feeding for improved standard of living among youth in Ebonyi and Enugu State, Nigeria;
2. There is no significant difference between the mean response of farmers and agricultural extension agents on the skills in duck marketing for improved standard of living among youths in Ebonyi and Enugu State, Nigeria.

2.0 METHODOLOGY

The study adopted a questionnaire survey research design, The population for the study is 6,594 consisting of 6,347 poultry farmers and 247 Agricultural extension agents in the area. The sample size for the study is 377, drawn using Taro yameni formular for sample size determination made up of 300 registered poultry farmers and 77 Agricultural extension agents. Proportionate sampling technique was also used to obtain the sample size across the two states The instrument for data collection is a self-structured questionnaire titled Duck Production Skills for improved standard of living Questionnaire (DPFISLQ). The DPFISLQ is subdivided into three (3) clusters with a total of ninety-seven (97) items anchored on 4-point response options of Highly Required (HR=4), Moderately Required (MR=3), Slightly Required (SR=2)

and Not Required (NR=1). The instrument for data collection was face and content validated by five (5) experts, two experts from Agricultural Education, one expert in poultry production- Department of Animal Production, one expert in Mathematics Education and another in Test Measurement and Evaluation Departments all from Joseph Sarwuan Tarka University, Makurdi. The instrument was trial tested on 30 respondents comprising 25 poultry farmers and 5 agricultural extension agents from Benue state. The data collected was analysed using Cronbach alpha method with a reliability of 0.83 showing that the instruments were reliable. Data for the study was collected by the researcher with the help of five research assistants. A total of 377 copies of questionnaire was administered to the subjects but only 358 copies (285 from farmers and 73 extension agents) were retrieved which was used for data analyses. data were analysed using means and standard deviation to answer research questions, while t-test was used to test the null hypotheses at 0.05 level of significance. The decision rule: Any item that score 2.50 and above will be regarded as required and below 2.50 will be regarded as not required. For hypotheses, where the p-value of 0.05 was equal or less than the alpha value, the null hypothesis was rejected otherwise accepted.

3.0 RESULTS AND DISCUSSION

3.1 Results

3.1.1 Research question 1: What are the skills in duck feeding for improved standard of living among the youths in Ebonyi and Enugu State, Nigeria?

Data used to answer research question 1 is presented in Table 1 below.

Table 1: Mean Rating and Standard Deviation of the Respondents on the Skills Required in Duck Feeding for improved standard of living Among Youths in Ebonyi and Enugu State, Nigeria (N=285, 73).

S/N	Item Statement	\bar{X}_1	S_1	\bar{X}_2	S_2	RMK
Ability to:						
1	provide concentrate feeds to duck in the morning before allowing them out and in the evening before allowing them in	3.25	.49	3.13	.34	R
2	construct a swimming pool for duck	3.38	.52	3.31	.52	R
3	provide clean water for drinking and bathing duck regularly	3.36	.52	3.26	.50	R
4	provide for duck roughages like Napier and carpet grass	3.40	.53	3.41	.54	R

5	clean the feeding troughs regularly with disinfectants	3.47	.54	3.39	.54	R
6	refill the swimming pool with water for drinking and bathing	3.48	.53	3.49	.55	R
7	provide vitamins to boost their appetite for food	3.42	.54	3.42	.55	R
8	keep duckling indoors to provide feeds and water in other to avoid loss	3.37	.57	3.49	.55	R
9	feed birds with appropriate feed such as small fresh eggs, warms, mollusk, frogs, salamander seeds, grains, fruits	3.39	.53	3.45	.55	R

Keys: X_1 - mean of farmers, S_1 - standard deviation of farmers, X_2 - mean of extension agents, S_2 -standard deviation of extension agents, R-Required

Data presented in Table 1 shows that all the items had their mean ranging from 3.25 to 3.48 for farmers and 3.26 to 3.49 for extension agents. These are all above the cut off mean of 2.50, proving that all the items are the skills required in duck feeding for improved standard of living among the youths of Ebonyi and Enugu, Nigeria. The standard deviation ranged from 0.34 to 0.57 for farmers and 0.34 to 0.55 for extension agents thus, they are close to each other and not far from the mean, implying that the responses of the respondents are not far from each other.

Hypotheses 1: There is no significant difference between the mean response of farmers and agricultural extension agents on the skills required in duck feeding for improved standard of living among youths in Ebonyi and Enugu State, Nigeria.

Data that was used to test hypothesis 1 is presented in Table 2 below.

Table 2: t-Test Result of the Respondents on the Skills Required in Duck Feeding for improved standard of living Among Youths in South-South, Nigeria.

STATUS	N	Mean	Std. Deviation	Std. Error Mean	Df	sig	t-cal	Alpha value	Remark
Farmers	285	3.397267	0.536339	.13961	356	.535	.620	.05	NS
Ext. Agents	73	3.375989	0.520199	.27630					

Keys: N= Number of respondents, Std = Standard deviation, df = degree of freedom, Sig. = P-value; t-cal = t-calculated value; NS = Not Significant.

Table 2 presents the t-test result of the respondents on the skills required in duck feeding for improved standard of living among youths in Ebonyi and Enugu, Nigeria. The result shows that the p-value (sig) is .535 (at 356 degree of freedom) which is higher than the alpha value of .05, indicating that the test is not statistically significant. The null hypothesis is therefore accepted. This means that there is no significant difference between the mean response of duck

farmers are agricultural extension agents on the skills required in duck feeding for improved standard of living among youths in Ebonyi and Enugu, Nigeria.

3.1.2 Research question 2: What are the skills in duck processing for improved standard of living among the youths in Ebonyi and Enugu, Nigeria?

Data used to answer research question 2 is presented in Table 3 below.

Table 3: Mean Rating and Standard Deviation of the Respondents on the Skills Required in Duck Processing for improved standard of living Among Youths in Ebonyi and Enugu, Nigeria (N=285, 73).

S/N	Item Statement	\bar{X}_1	S_1	\bar{X}_2	S_2	RMK
	Ability to:					
1	humanely slaughter ducks to ensure ethical standards and meat quality by severing the neck with knife	3.35	.60	3.38	.54	R
2	drain out the blood to prevent quick spoilage	3.43	.58	3.35	.58	R
3	remove the feathers either by plucking manually or scalding by boiling water to a required temperature for immersion	3.35	.56	3.28	.56	R
4	remove (eviscerate) internal organs to prevent contamination.	3.29	.57	3.27	.58	R
5	cut the carcass into marketable cuts for value-added products in line with customers preferences	3.33	.57	3.27	.50	R
6	apply brines or spices to enhance flavor and to extend shelf life	3.34	.59	3.28	.56	R
7	select appropriate wood for smoking (e.g., hardwoods like mahogany for better flavor)	3.42	.52	3.42	.52	R
8	control temperature to avoid over-drying.	3.44	.60	3.30	.59	R
9	apply appropriate concentration of salt to reduce moisture/ bacterial growth.	3.39	.62	3.35	.65	R
10	sun dry or artificial drying (using dehydrators) to reduce moisture content and prevent microbial growth.	3.34	.60	3.38	.59	R
11	properly package meat using vacuum sealing to prevent freezer burn.	3.40	.61	3.30	.56	R
12	refrigerate eggs at optimal temperature of 0–4°C to slow bacterial growth	3.38	.60	3.30	.61	R
13	apply food-grade oil to duck eggs to seal pores in order to reduce moisture loss to extending shelf life.	3.40	.57	3.49	.55	R
14	prepare powdered duck eggs through dehydration for extended storage.	3.38	.60	3.47	.55	R

Keys: X_1 - mean of farmers, S_1 - standard deviation of farmers, X_2 - mean of extension agents, S_2 - standard deviation of extension agents, R-Required

Data presented in Table 3 shows that all the items had their mean ranging from 3.29 to 3.44 for farmers and 3.27 to 3.49 for extension agents. These are all above the cut off mean of 2.50,

proving that all the items are the skills required in duck processing for improved standard of living among the youths of Ebonyi and Enugu, Nigeria. The standard deviation ranged from 0.52 to 0.62 for farmers and 0.55 to 0.65 for extension agents thus, they are close to each other and not far from the mean, implying that the responses of the respondents are not far from each other.

3.1.3 Research question 3: What are the skills in duck marketing for improved standard of living among youths in Ebonyi and Enugu, Nigeria?

Data used to answer research question 3 is presented in Table 4 below.

Table 4.: Mean Rating and Standard Deviation of the Respondents on the Skills Required in Duck Marketing for improved standard of living Among Youths in Ebonyi and Enugu, Nigeria (N=285, 73).

S/N	Item Statement	\bar{X}_1	S_1	\bar{X}_2	S_2	RMK
	Ability to:					
1	register with the duck marketer's association to access a wider market	3.46	.54	3.23	.63	R
2	survey the market for the duck to determine the market value and demand	3.41	.56	3.31	.62	R
3	set clear objectives for the marketing	3.36	.51	3.24	.57	R
4	sort and grade duck based on body size and weight	3.25	.49	3.09	.55	R
5	tag prices for each grade based on market survey and demand	3.28	.51	3.26	.57	R
6	identify distributing channels for marketing of duck	3.29	.51	3.15	.56	R
7	seek promotion strategies for duck products	3.36	.53	3.39	.52	R
8	advertise duck products locally and through media to attract buyers	3.35	.56	3.41	.59	R
9	sell products directly to buyers at the farm gate or transport the products to the market to sell at better prices	3.37	.58	3.36	.61	R
10	distribute or sale products to buyers through middlemen	3.35	.57	3.30	.61	R
11	ensure regular supply of duck products to buyers	3.38	.56	3.35	.58	R
12	keep good relationship with customers	3.34	.53	3.34	.58	R
13	review all the marketing strategies to meet the present condition	3.29	.52	3.41	.61	R
14	seek out new relationships to meet high demand.	3.37	.54	3.36	.61	R
15	keep appropriate records of sales for expansion and sustainability	3.34	.54	3.34	.50	R
16	calculate the expenditure and income to balance the profit and loss account	3.45	.54	3.49	.55	R
17	manage finances obtained from duck production to give room for saving and reinvestment.	3.25	.63	3.36	.61	R

Keys: \bar{X}_1 - mean of farmers, S_1 - standard deviation of farmers, \bar{X}_2 - mean of extension agents, S_2 - standard deviation of extension agents, R-Required

Data presented in Table 4 shows that all the items had their mean ranging from 3.25 to 3.46 for farmers and 3.09 to 3.49 for extension agents. These are all above the cut off mean of 2.50, proving that all the items are the skills required in duck marketing for improved standard of living among the youths of Ebonyi and Enugu, Nigeria. The standard deviation ranged from 0.51 to 0.63 for farmers and 0.50 to 0.63 for extension agents thus, they are close to each other and not far from the mean, implying that the responses of the respondents are not far from each other.

Hypotheses 2: There is no significant difference between the mean response of farmers and agricultural extension agents on the skills required in duck Marketing for improved standard of living among youths in Ebonyi and Enugu, Nigeria.

Data that was used to test hypothesis 2 is presented in Table 5 below.

Table 5: t-Test Result of the Respondents on the Skills Required in Duck Marketing for improved standard of living Among Youths in Ebonyi and Enugu, Nigeria.

STATUS	N	Mean	Std. Deviation	Std. Error Mean	Df	Sig	t-cal	Alpha value	Remark
Farmers	285	3.351488	0.547603	.19068	356	.226	1.213	.05	NS
Ext. Agents	73	3.321547	0.585548	.36810					

Keys: N= Number of respondents, Std = Standard deviation, df = degree of freedom, Sig. = P-value; t-cal = t-calculated value; NS = No Significant.

Table 5 presents the t-test result of the respondents on the skills required in duck marketing for improved standard of living among youths in Ebonyi and Enugu State, Nigeria. The result shows that the p-value (sig) is .226 (at 356 degree of freedom) which is higher than the alpha value of .05, indicating that the test is not statistically significant. The null hypothesis is therefore accepted. This means that there is no significant difference between the mean response of duck farmers and agricultural extension agents on the skills required in duck marketing for improved standard of living among youths in Ebonyi and Enugu, Nigeria.

3.2 Discussion of findings

The findings of the study in research question 1 revealed that there are 9 skills required in duck feeding for improved standard of living among youths in Ebonyi and Enugu, Nigeria. The finding is in accordance with Alfred and Agbede (2020) who found that farmers needed to possess the ability to give natural feeds and supplementary feeds to ducks. In line with the

findings also, Eze and Okonkwo (2019) who earlier noted that farmers should acquire skills in local feed formulation to reduce feeding costs and improve profitability and that they should possess knowledge of locally available feed ingredients such as cassava peels, palm kernel cake, and groundnut cake can help in producing cost-effective and nutritionally adequate feed. The findings in hypothesis 1 is in line with Eleyi (2019) who found that there is no significant difference between the mean response of farmers and extension agents on the capacity building needs of youths in poultry production for sustainable employment and improved standard of living.

The findings of the study in research question 2 revealed that there are 14 skills required in duck processing and preservation for improved standard of living among youths in Ebonyi and Enugu, Nigeria. This finding corroborates Osuji, *et al* (2018) who found in their study that smoking skills is employed to preserve duck eggs while imparting a distinct smoky flavour. The finding is also in line with Schiavone, *et al* (2017) who found that the initial step in duck meat processing involves slaughtering using traditional methods, typically by hand after which slaughtered ducks are defeathered by immersing them in hot water to loosen the feathers. The findings of the study in hypothesis 1 aligns with Duke (2021) who found that there is no significant difference between the mean response of poultry farmers and animal husbandry teachers on the technical skills required by school leavers for improved standard of living in duck processing and marketing.

The findings of the study in research question 3 revealed that there are 17 skills required in duck marketing for improved standard of living among youths in Ebonyi and Enugu, Nigeria. This finding corroborates the report of Wombo, *et al* (2017) who noted that marketing skills comprises of activities directed at ensuring the flow of goods and services from producer to consumer or user. In line with the findings , Eje, (2018) found that poultry farmers need skill improvement in Duck marketing. In keeping with the findings of this study further, Obiora, (2020) and Onyeka *et al.*, (2021) found that the essential skills needed for marketing of ducks include; market research and analysis, identify target markets, identifying potential customer segments such as households, restaurants, and retailers, evaluating existing competitors to identify market gaps and opportunities, product development and branding. The findings of the study in hypothesis 2 agrees with Enoch, *et al*, (2022) who found that there is no significant



difference in the mean response of farmers and extension agents on the occupational deftness required by agricultural graduates in duck marketing for income generation.

4.0 CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

Based on the result of the data collected and analyzed, it was concluded that youths in Ebonyi and Enugu states, Nigeria require skills in feeding, processing and marketing.

4.2 Recommendations

Based on the result of the data collected, analyzed and findings made from the study, the following recommendations were made.

1. Government through the extension agents can organize retraining programmes for the youths in the feeding skills in order for them to become self-reliance in the occupation.
2. Youths should visit certified Abattoirs within their locality for proper training on the processing of duck
3. Federal Government through their ministry of youth empowerment should organize a seminar or re-orientation for the youths on the best marketing strategies as identified by this study.



REFERENCES

- Adeola, O., & Ojo, T. (2019).** Poultry farming skills for sustainable production. *Agricultural Journal*, 45(2), 120-134.
- Adeosun, A. O. & Owoade, O. A. (2020).** Duck production in Ibadan metropolis area of Oyo State, Nigeria. *Journal of Agricultural Science and Practice* Volume 5(3),119-124.
- Akaa. C.W, Ngbongha. I. O & Akaa. I. I(2023).** Skills Required by Retirees in Poultry Production for Improved Livelihood in Oju L.G. A, Benue State. *International journal of Research and Innovation in Applied Science (IJRIAS)*. 8,(9) ,2454-6194
- Alfred, A. & Agbede, O. (2020).** Rural Duck Farming in Nigeria. *International Journal of Poultry Science*, 8(4), 320-328.
- Armstrong, M. (2021).** A handbook of human resource management practice (15th ed.). Kogan Page.
- Demirel, M, Miray, D, Joean, E & George, H (2016).** Effects of Problem Based Learning on Attitude: A meta-analysis Study. *Eurasia Journal of Mathematics and Technology Education*. Vol2 Issue 10. pg 46.
- Drake, D, Rondney, A, Kennedy. I & Eric, S (2019).** Multi-joint rate of force development testing protocol affects reliability and coefficient in Research. Retrieved on 20th August, at www.google.com.
- Duke, D.T (2021).** Technical skills required by school leavers for self-reliance in duck processing and marketing in Cross Rivers central zone. *Journal of Science and Agriculture Education*, 2(1)67-79
- Eje, A.E (2018).** Skill Improvement Needs of Poultry Farmers in Duck Production in Enugu State, Nigeria. *International Journal of Agricultural Science and Technology* 8 (1) 77-89
- Eleyi, P.J(2019).** Capacity building needs of youths in poultry production for sustainable employment in Rivers State. *African Journal of Brooding and Poultry Innovations* 3 (2) 103-14
- Enoch, G. S(2022).** Quality Assurance as Panacea for Effective Educational Services in Ondo State. *International Journal of Scientific Research*. Retrieved 5th October, 2025 at www.google.com
- Eze, U. C. & Okonkwo, M. A. (2019).** Cost-effective feed formulation using local ingredients in Nigeria. *Journal of Sustainable Agriculture*, 12(1), 67-82.
- Food and Agriculture Organization (FAO). (2021).** Duck farming: A guide for small-scale farmers. FAO Publications.
- Islamic Development Bank (2019).** Annual Development Effectiveness Report. Three decade of transformative impart.
- Nguyen, L., & Tran, H. (2018).** Marketing strategies in poultry farming. *Journal of Agricultural Economics*, 32(4), 210-225.



- Obiora, C. J. (2020).** Marketing strategies for poultry farmers in Nigeria: A case study of duck farming. *Nigerian Journal of Business Studies*, 15(2), 78-94.
- Onyeka, J. K., Okafor, M. O. & Nwosu, T. C. (2021).** Reproductive performance of indigenous and exotic duck breeds in Nigeria. *Tropical Animal Production Journal*, 8(4), 92-107.
- Osuji, E. T., Mazi, E. A., & Oparaku, N. F. (2018).** Effect of seasoning and cooking method on the sensory properties and tenderness of roast duck meat. *International Journal of Food Science and Nutrition Engineering*, 8(3), 51-57.
- Poduzov, A. A. (2018)** The standard of living concept: An essay on current perceptions, *Studies on Russian Economic Development*, 19(6), pp. 610–617. doi: 10.1134/S1075700708060075
- Rahman, M., Ali, S., & Hasan, R. (2022).** Health and disease management in waterfowl farming. *Veterinary Science Journal*, 15(3), 98-112.
- Sen, A. (2016)** The Living Standard Author (s): Amartya Sen Reviewed work (s): Source Oxford Economic Papers, New Series, Vol. 36, Supplement: Economic Theory and Hicksian Themes. Published by: Oxford University Press. Pp. 74-90
- Schiavone, A., Guo, K., Tassone, S., Gasco, L., & Hernandez, E. (2017).** The effects of duck species on meat quality traits, and the fatty acid profile and cholesterol content of the m. Pectoralis superficialis. *Animal*, 11(7), 1222-1230.
- Wombo, A.B, Igbabaka, I & Shimave, A.G (2017).** Assessment of skills for hunting and marketing edible frog for income generation in Gboko LGA of Benue State. *Journal of Agricultural Education Teachers Association of Nigeria* 1(1) 27-38
- Wever, D. G. & Obiyai, K. K (2019).** Principles of Vocational Guidance and Career in education. selfers Academic Press Ltd, Makurdi Benue State.
- .