



## Challenges and Prospects of Duck production in Taraba state. A case study of Ardo-kola Local Government Area

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### ABSTRACT

This research investigated the challenges and future prospects of duck farming in Ardo-kola Local Government Area, Taraba State. Data were gathered from a sample of 100 randomly selected respondents through the use of questionnaires. Basic descriptive statistical tools, including percentages, were employed to analyze the collected data. The findings revealed that a significant obstacle in the study area related to duck farming is the lack of awareness and general knowledge about duck production. A majority of the respondents had never consumed duck meat and held the belief that there were no religious restrictions associated with duck farming. This prevailing perception has negatively impacted the demand for duck meat and eggs, leading to a scarcity of empirical research on the management and genetic enhancement of ducks in Nigeria. This study highlights the uncommon nature of duck farming in the region. It underscores the need for educating the local community through the assistance of extension agents who can organize seminars and provide training to duck farmers. Such efforts should focus on elucidating the benefits of duck rearing, including its potential as a source of income. Additionally, farmers should be informed about essential practices such as proper sanitation and improved veterinary care to reduce duck mortality rates.

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### INTRODUCTION

In recent time, concerted efforts have been made to improve animal protein consumption in most developing countries by the government. These include enhancing the production of animal protein from fast growing but prolific livestock (Umeh *et al.*, 1999) and by financing researches in animal production. However, one aspect of poultry production which is only just beginning to show its potential in this region is duck production. Duck has always been of lesser significance in contributing to meat production than chickens. As a result of the fundamental discoveries in the management techniques related to duck, this situation is

changing and the exploitation of the species is now beginning to take place in West Africa (Cherry, 1981). Therefore, there is a compelling need to integrate duck production into Nigerian agricultural system, for they are not only important as source of nutritious meat but as a veritable source of eggs for human consumption Obinne *et al.* (2000). According to Jacobs (1985) cited by Umeh *et al.* (1999). (World Bank, 1996; FAO, 1996; Nworgu *et al.*, 1997) ducks are meatier than chickens weighing 2.48 – 2.93kg at 8 -9 weeks of age. Their eggs are very big and delicious. Small breeds like Pekin weigh 1.72 – 2.04kg at 9 – 10 weeks of age. Ducks also suffer less from local diseases which are common in

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chickens and do not necessarily need sophisticated compounded feeds Okunlola *et al* (1998). In addition, unskilled labour can be quickly taught on how to rear them successfully on poor quality feed. Thus, ducks have profit potential and ability to produce high quality protein for small farmers or big land owners alike as prevalent in the study area. However, there are some pertinent questions that have to be answered. For instance, why are poultry farmers showing apathy to the raising of ducks in Nigeria? What cultural belief is associated with the raising and consumption of ducks? Finding answers to these questions forms the main thrust of this study. It is believed that the study will assist to remove the identifiable barriers to duck production and to prescribe the practices that will enhance production and thereby contribute to the mobilization and sensitization for greater attention to duck production in this region.

This research was proposed on the background of the following objectives

- To ascertain the level of acceptability of duck meat and egg as an acceptable source of animal protein.
- To determine the proficiency of duck rearing/farming.
- To propose ways to enhance duck meat and egg production

## RESULTS

**Table1.** Shows the number of questionnaires distributed and the percentage returned

<b>Electoral wards</b>	<b>No. of questionnaires distributed</b>	<b>No. of questionnaires returned</b>	<b>Percentage returned (%)</b>
Ardo-kola	10	10	10.86
Bakin-dutse	10	10	10.86
Alin-gora	10	9	9.78
Jauro yinu	10	9	9.78
Iware	10	10	10.86
Zangon kombi	10	9	9.78
Sunkani	10	8	8.69
Tau	10	9	9.78
Mayo renewo	10	10	10.86
Lamido borno	10	8	8.69
<b>Total</b>	<b>100</b>	<b>92</b>	<b>100</b>

**Source: field survey 2022**

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## MATERIALS AND METHODS

### Study Area

The research was conducted in Ardo-kola local government in Taraba state, Taraba state is located in the Northeastern Nigeria. The state is located on latitude 8° 53 N and longitude 11°23E. The area has an annual rainfall ranging from 1000 – 1500mm and temperature of 30 – 38°C (Encarta, 2009).

### Experimental Design

Stratified random sampling was used in this study, the study involved 100 respondents randomly selected from the ten (10) electoral wards consisting of ten (10) individual from each ward. 100 questionnaires were administered to the ten wards of the local government and 92 were filled and returned and was used for the statistical analyses.

### Data Collection

Primary data collection was used for the study; for people who cannot read nor write, the questionnaire were clearly interpreted in the local dialect and answers from the respondents were recorded in the questionnaire.

### Data Analysis

Data collected were analysed using simple descriptive statistical tool such as simple percentage.



Presentation and analysis of the result obtained from questionnaire and oral interview

**Table 2:** do you rear duck

<b>Duck</b>	<b>No. of Respondents</b>	<b>Percentage of Respondents (%)</b>
Yes	10	10.86
No	82	89.13
Total	92	100

**Source:** field survey 2022

According to table 2, 10 respondents representing 10.86% rear duck while 82 respondents representing 89.13% do not rear duck of the sampled questionnaire

**Table 3:** Are you aware that ducks are highly prolific

<b>Prolificacy</b>	<b>No. of Respondents</b>	<b>Percentage of Respondents (%)</b>
Yes	10	10.86
No	82	89.13
Total	92	100

**Source:** field survey 2022

From the table above, 10 respondents representing 10.86% are very much aware of the prolificacy of duck while 82 respondents representing 89.13% are not aware of the prolificacy of duck.

**Table 4:** Is there any reason for not keeping or rearing duck

<b>Reasons</b>	<b>No. of Respondents</b>	<b>Percentage of Respondents (%)</b>
Yes	5	5.43
No	87	94.56
Total	92	100

**Source:** field survey 2022

From the table above, 5 respondents representing 5.43% have some reasons why they don't keep duck while 87 respondents representing 94.56% do not have any reasons why they don't keep duck.

**Table 5:** Is there any government policy that hinders you from keeping ducks

<b>Government policy</b>	<b>No. of Respondents</b>	<b>Percentage of Respondents (%)</b>
Yes	1	1.00
No	91	99.00
Total	92	100

**Source:** field survey 2022

From the table above, 1 respondent representing 1.00% said there is government policy in rearing duck while 91 respondents representing 99.00% said there is no any government policy that hinders duck production in Nigeria.

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**Table 6:** Is the weather condition of Ardo-kola favourable for duck production

<b>Weather</b>	<b>No. of Respondents</b>	<b>Percentage of Respondents (%)</b>
Yes	43	46.73
No	49	53.26
Total	92	100

**Source:** field survey 2022

From the table above, 43 respondents representing 46.73% indicates that the weather condition of Ardo-kola have an adverse effect on

duck production while 49 respondents representing 53.26% indicates that duck can tolerate the weather condition of the area.

**Table 7:** Is disease infection a major challenge of duck production

<b>Disease</b>	<b>No. of Respondents</b>	<b>Percentage of Respondents (%)</b>
Yes	18	19.56
No	74	80.43
Total	92	100

**Source:** field survey 2022

From the table above, shows that 18 respondent representing 19.56% indicates that diseases outbreak is a challenge that stop them from duck production while 74 respondents

representing 80.46% shows that diseases is not a challenge of duck production in Ardo-kola local government area.

**Table 8:** Are ducks breeds resistant to poultry diseases

<b>Disease resistance</b>	<b>No. of Respondents</b>	<b>Percentage of Respondents (%)</b>
Yes	68	73.91
No	24	26.08
Total	92	100

**Source:** field survey 2022

From the table above, the data obtained 68 respondent representing 73.91% shows that ducks are resistant to poultry

diseases while 24 respondents representing 26.08% shows that ducks are not resistant to poultry diseases.

**Table 9:** have you ever tested ducks meat

<b>Duck meat</b>	<b>No. of Respondents</b>	<b>Percentage of Respondents (%)</b>
Yes	83	90.21
No	9	9.72
Total	92	100

**Source:** field survey 2022

From the table above, 83 respondent representing 90.21% have tested duck meat

while 9 respondents representing 9.72% said they have never tested duck meat.

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**Table 10:** Is duck meat testier than chicken

<b>Duck meat and poultry</b>	<b>No. of Respondents</b>	<b>Percentage of Respondents (%)</b>
Yes	9	9.72
No	83	90.21
Total	92	100

**Source:** field survey 2022

From the table above, 9 respondent representing 9.72% said that duck meat is testier than chicken while 83 respondents representing

90.21% said that poultry meat is testier than duck meat.

**Table 11:** Is there any religious taboo attach to eating ducks product such as meat

<b>Religious taboo</b>	<b>No. of Respondents</b>	<b>Percentage of Respondents (%)</b>
Yes	5	5.43
No	87	94.56
Total	92	100

**Source:** field survey 2022

From the table above, 5 respondent representing 5.43% said there is religious taboo attach to eating duck products while 87

respondents representing 94.56% said there is no any religious taboo attach to eating duck products.

**Table:** 12 causes of mortality in duck

<b>Causes</b>	<b>No. of Respondents</b>	<b>Percentage of Respondents (%)</b>
Poor management	22	23.91
Poor nutrition	19	20.65
Age	5	5.43
Disease outbreak	15	16.30
Weather condition	5	5.43
Domestic accident	4	4.34
Predators	7	7.60
Poor mothering ability	6	6.52
Theft	5	5.43
Others	4	4.34
Total	92	100

**Source:** field survey 2022

From the above table, 22 respondent representing 23.91% attributed the causes of mortality in duck to poor management, 19 respondents representing 20.65% also attributed the cause of mortality in duck to poor nutrition, 5 respondents representing 5.43% shows that mortality in duck is caused by the age of the duck, disease outbreaks was also a major causes of mortality in ducks.

## DISCUSSION

It interesting that all the respondents picked for this study had some form of educational knowledge on rearing of ducks or number of the respondents that keep ducks for some purposes only 10.68% of the respondents are into duck rearing though they don't keep them in large number while 89.13% do not keep duck at all and according to the study they have no any reasons why they don't keep the duck.

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Regarding eating or testing of duck products only few respondents have never consumed or tested duck products representing 9.72% of the respondents while a reasonable percentage of the respondents have in any way or the other consumed duck meat.

The major challenges facing duck production in the study area is unawareness of its prolificacy, nutritional value and a good management knowledge about duck production as only 10.86% of the respondents are aware of how prolific duck production is, on the other hand majority of the respondents have no idea of how prolific ducks are, representing 89.13% of the respondents. The findings in this study agrees with Olayide (1980) who worked on Nigerian small farmers' problems and prospects in integrated rural agriculture.

Lastly, the major causes of mortality in duck production are poor management, poor nutrition, disease outbreak and predators representing 23.91%, 20.65% and 7.60% respectively, there are other causes of mortality in duck such as theft, accidents, age, poor mothering ability and others but according to the respondents the percentage is very low.

#### CONCLUSION/RECOMMENDATIONS

The advent of commercial fast-growing and egg-laying strain of chicken has relegated to the background the relevance and relative contribution of indigenous poultry species such as chicken, duck, guinea fowl and pigeon. This trend has adversely impacted on duck as exemplified in this study, low demand of its meat and eggs, and dearth of empirical studies directed towards management and genetic improvement of this waterfowl in Nigeria.

1. There is need to create awareness of duck production in the study area.
2. People should be inform that duck meat, its products can be substitute to that of chicken.
3. People should also be enlightened about the prolificacy of ducks as compared to local chickens.

4. People should also be educated on how to reduce the rate of mortality in duck and less cost associated with duck production.
5. People should be encourage to eat duck products in other to meet the protein level required for sustainable growth and development.

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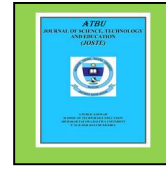
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