

12



J. Agric. Res. & Dev. 16(1)12-19. Copy@2017. Faculty of Agriculture, University of Ilorin, Nigeria

PERCEPTION OF POULTRY FARMERS ON DUCK FARMING IN KWARA STATE, NIGERIA

OLADIPO, F.O., BOLARIN, O., DAUDU, A.K., OLORUNFEMI, O.D. AND TINUOYE, I.T.

Department of Agricultural Extension and Rural Development, University Of Ilorin, Ilorin, Nigeria*Corresponding author: felixoladipo5@gmail.com. +2348032853580. <https://dx.doi.org/10.4314/jard.v16i1.2>

ABSTRACT

The study assessed the perception of poultry farmers on duck farming in Kwara state, Nigeria. A random sampling technique was employed in selecting 80 poultry farmers used in the study. Analytical tools used include frequency counts, charts, mean, percentage and Pearson Product moment correlation. Results showed that the mean age of the respondents was 41.3 years with majority of the respondents (71.3%) were male while 28.8% were females. About 70% were married. Findings further showed that about 42% of the respondents were aware of duck farming, 23.9% of the respondents were aware of duck farming through Radio/TV. Furthermore, some of the perceived benefits of duck farming by poultry farmers were ducks have less mortality ($\bar{x}=2.69$), duck meat is tastier than broiler ($\bar{x}=2.6$) and ducks are less expensive ($\bar{x}=2.53$). The major constraints to duck farming in study area were lack of information and awareness about duck farming (1.794 ± 0.503) and religious factors (1.575 ± 0.521). Results of correlation analysis revealed that none of the socio economic characteristics tested were significant with the perceived knowledge of the respondents on the advantages of duck farming ($p<0.05$). It was concluded that the perception of poultry farmers to duck farming in study area was positive but were constrained by lack of information and awareness about duck farming (1.794 ± 0.503) and religious factors (1.575 ± 0.521). This is therefore a challenge for extension service delivery and as such poultry farmers and the general public, considering the nutritional, economic and other benefits of ducks, be given adequate innovative information on duck rearing.

Keywords: Perception, Poultry, farmers, Duck farming, Kwara State.

INTRODUCTION

The livestock industry is an important component of general agriculture, a key contributor to economic growth and development of any nation. Livestock accounts for 5% of the 40% GDP earned by agriculture in Nigeria (NBS, 2010). Poultry outnumbers all other forms of livestock in Nigeria and not surprisingly, is found everywhere in the country (Adeyemo, 2012). The poultry industry represents an important source of high quality proteins, minerals and vitamins to balance the human diet (USDA, 2013). Poultry contains iron, zinc and B-complex vitamins except folic acid and supply of calcium and phosphorus especially in the bones when eaten (Adeyemo, 2012). In Nigeria the poultry industry has gained increase rapidly in recent years and it is however one of the most commercialized sub-sectors of Nigerian agriculture (USDA, 2013).



The increased number in poultry production can be associated with the fact that poultry has lots of advantages compared to other livestock. Poultry birds are very good converters of feed into protein in meat and eggs, and also the production cost per unit remains relatively low, and the return on capital is high. Furthermore, meat from poultry is very soft and it is highly acceptable to consumers and also the production cycle of poultry birds is quite short so return on investment is fast. Poultry birds include; turkey, ostrich, duck, chicken, goose, guinea fowl, pigeons etc. Although, other poultry birds are also widely kept but chickens are far the most commonly reared (Adeyemo, 2012).

For the poultry industry to develop to the optimum level of attaining the minimum protein requirement of 65gm per day capital as recommended by the World Health Organization, the poultry industry has to take advantage of other species of poultry and not only concentrate on chicken and its products but other species of poultry which include goose, quail, ostrich, peacock, and especially ducks. Locally ducks are raised on free range alongside with the domestic chickens. Even though ducks are harder and they are more resistant to diseases and unfavourable environmental conditions but they are fewer to chickens due to cultural beliefs which portray ducks as mystique birds. However, increasing development in research and technology has eradicated this belief and enhanced productivity in birds.

Ducks are easier to manage because of they are rarely affected by the common diseases prevalent among chicken, they are harder and more resistant to environmental hazards, therefore better than scavenger birds in developing countries like Nigeria ducks are able to digest fibre and protein food relatively and more efficiently than chickens. This is an advantage considering recent emphasis on non-conventional feedstuffs to bring down cost of feed inputs in the poultry industry (Ikani, 2012). Therefore, there is the need to fill this lacuna and widen the scope of poultry meat and egg by focusing more attention on the relatively underutilized poultry species called ducks which has great potentials to ensure a sustainable supply of the additional needed meat and egg to feed the teeming population in Nigeria. In spite of the profitability potentials and health benefits of ducks and its products, a lot of poultry farmers in Kwara State are yet to spring up with intensified husbandry. This might be as a result of their lack of the detailed knowledge and capacity on the profitable production of both meat and egg from ducks or other reasons yet to be known. It is against this background that the study attempts to assess the perception of poultry farmers on duck farming in Kwara State, Nigeria. The specific objectives were to:

- i. Describe the socioeconomic characteristics of poultry farmers;
- ii. Ascertain the awareness of poultry farmers to duck farming;
- iii. Examine the perceived knowledge level of poultry farmers on the advantages of duck farming; and
- iv. Identify the constraints to duck farming in the study area.

MATERIALS AND METHODS

The study was conducted in Kwara State, Nigeria. Kwara state has a total land area of around 32,500km², which is about 3.5% of the total land area of the country, with the land area of 923,768km². Considering the geographical location; Kwara state occupies an advantage position on the map of Nigeria. Kwara is located between latitudes 7°45'N and 9°30'N of the equator and longitudes 2°30'E and 6°25'E of the equator, it lies between the Northern and southern parts of Nigeria.

Perception of Poultry Farmers on Duck Farming in Kwara State, Nigeria

The estimated population of the state is about 2.37 million people out of this figure farmer's account for about 70%. The average population density of Kwara state as at 2006 was about 75 people per square kilometer (NBS, 2010). Kwara state is an area with summer rainfall which ranges annually from 1000mm to 1500mm. Raining season begins around late march and ends September, while the dry season starts in October and ends in March. The climatic conditions of Kwara state supports high length grasses mixed with short randomly distributed trees. This characteristic allows the people of Kwara state to make farming their main occupation. Yam, cassava, water yam and sweet potato are the food crops produced in Kwara state and they constitute the major staple food aside cereals.

For the purpose of this study, the targeted populations were the entire poultry farmers in Kwara State, Nigeria. A well-structured questionnaire was used to elicit information from eighty (80) randomly selected poultry farmers who are members of the Poultry Farmers Association of Nigeria, Kwara State Chapter. This constitutes about eighty percent (80%) of the one hundred and four registered poultry farmers across the state. Descriptive statistical tools such as frequency counts, mean, charts and percentages were used inferential tool, mainly the Pearson Product Moment Correlation (PPMC) was used to establish the relationship between some socioeconomic characteristics and the perceived knowledge of poultry farmers on the advantages of duck farming.

RESULTS AND DISCUSSION

Socioeconomic Characteristics of the Respondents

Results in Figure 1 showed that the mean age of the respondents was 41.3 years. This suggests that an average poultry farmers engaging in duck farming in the study area were still within their active age. Also, 5.0% of the poultry farmers fell below the age of 26 years, some (21.3%) fell within 26-35 years, and 42.5% fell within 36-45 years, 25% of 46-55 years while 6.3% fell in 56 years above. Figures 1 further revealed that majority of the respondents (71.3%) were male while only 28.8% were females. As indicated in the Figure 1, 17.5% of the respondents were single, 70% were married, and 3.8% of the respondents were divorced, separated or widowed. Daudu *et al.* (2015); Odusina and George (2008) stated that married household heads tend to be more involved in agriculture. This implies that more married people are involved in poultry production that engaging ducks farming as alternative business.

The data further revealed that 6.2% of the respondents have no formal education, 6.3% had primary education, and 17.5% acquired secondary education while 70% had tertiary education. This implies that majority of the poultry farmers have tertiary education which means that there is high level of literacy among respondents. Also, the mean household size of the respondents was 5 and about 21.3% of the respondents' household size was 1-3, 70.0% had a household size of 4-7 and 8.8% had a household size of above 7. Figures 1 revealed that 5% of the respondents have below 100 birds, 1.3% has 101-199 birds, and 12.5% of the respondents have between 200-499 birds while 81.3% had above 499 birds. Further results also showed that 16.3% of the respondents have been in poultry production for 5 years or less, 51.3% have been in poultry production between 6-15 years, 11.3% of the respondents have been in poultry production 16-25 years and only 2% of the respondents have been in poultry production for 26 years and above.

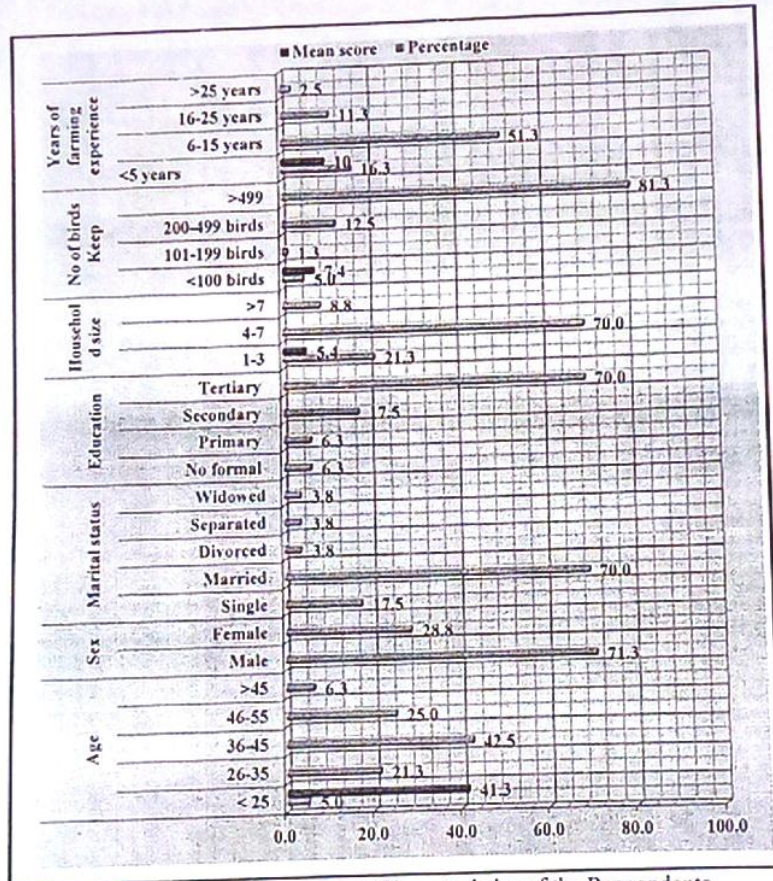


Fig. 1: Distribution of Socioeconomic Characteristics of the Respondents
Source: Field survey, 2016

Respondents' Awareness on Duck Farming and Practices

The results in Figure 2 revealed that out of the 4 basic things to know about duck farming, 41.6% of respondents were aware of duck farming, 27.7% were aware of different practices in duck farming, 17.5% were aware of the different breeds of ducks and only 13.3% are aware of the different practices in duck farming. Awareness which may be attributed to the fact that it is mostly the respondents that has undergone tertiary education were aware of duck farming, because education may make an individual more receptive to the advice from an extension services delivery or more able to deal with technical recommendation that requires certain level of literacy.

Perception of Poultry Farmers on Duck Farming in Kwara State, Nigeria

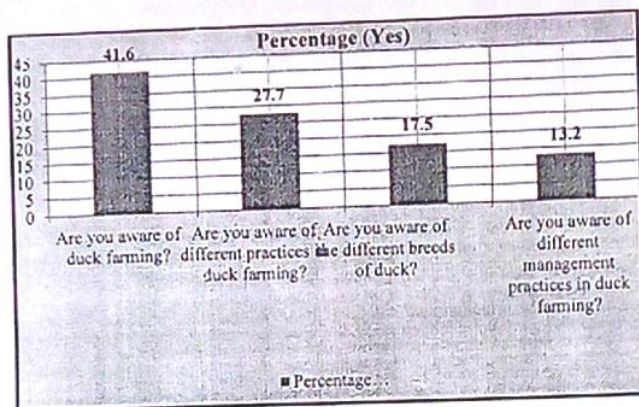


Fig. 2: Distribution of Respondents according to their Awareness on Duck Farming
Source: Field survey, 2016

Sources of Awareness of Respondents' to Duck Farming

Results in Figure 3 showed that a higher percentage (23.9%) of the respondents became aware of duck farming through Radio/TV and only (12.2%) became aware through extension agents, some (16.1%) became aware through print media, about (13.7%) through farmer's cooperatives (18.5%) and 15.6% through other means. This shows that extension agents has the lowest percent and according to (Oyeyinka *et al.*, 2011) who opined that extension agents in Kwara state have not been disseminating adequate information on poultry production techniques.

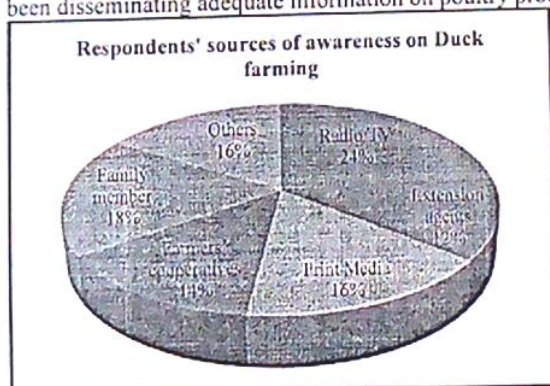


Fig. 4: Distribution of Respondents according to the Sources of Awareness on Duck Farming
Source: Field survey, 2016

Perceived Knowledge of Poultry Farmers to the advantages of Duck Farming

The results in Table 1 reveals the perceived knowledge of the respondents on the advantages of duck farming, that ducks are less expensive and it is attributed to the fact that ducks are mini livestock and rearing them does not require elaborate houses they require little space and can be sheltered in simple sheds at night and let loose during the day followed by the fact that ducks

have less mortality and consequentially reduced loss. Another advantage is that ducks are rarely affected by diseases. Ikani (2012) stated that ducks are rarely affected by the common disease problems prevalent among chickens. They are hardier and more resistant to environmental hazards. Other advantages include the fact that ducks have high profit potential; duck meat is tastier than broiler meat. According to Oluyemi and Ologhobo (1997) ducks are better in meat quality than broiler which is the major source of poultry meat in Nigeria, the quality of the meats were assessed on the basis of their appearance, juiciness, tenderness and flavour where duck meat was rated 9.0 to 7.1 of broiler meat. Another advantage of duck is that it encourages integrated farming. Ikani (2012) stated that integrated farming system is very feasible with duck rearing e.g. Duck-fish-snail farming and Duck-swampy rice production.

Table 1: Perceived Benefits of Duck Farming

ADVANTAGES OF DUCK FARMING	SA	A	U	D	SD	Mean Rank	
	Freq.(%)	Freq.(%)	Freq.(%)	Freq.(%)	Freq.(%)		
Ducks have less mortality	12(15)	23(28.8)	25(31.3)	18(22.5)	2(2.5)	2.69	1 st
Duck meat is tastier than broiler meat	14(17.5)	21(26.3)	27(33.8)	16(20.0)	2(2.5)	2.64	2 nd
Ducks are less expensive	19(23.8)	24(30.0)	16(20.0)	18(22.5)	3(3.8)	2.53	3 rd
Ducks have high profitability	22(7.5)	18(22.5)	20(25.0)	16(20.0)	4(5.0)	2.53	3 rd
Ducks are rarely affected by diseases	16(20.0)	31(38.8)	7(21.3)	15(18.8)	1(1.3)	2.43	5 th
Duck encourages integrated farming system	20(25)	26(32.5)	23(28.8)	7(8.8)	4(5.0)	2.36	6 th

Source: Field survey, 2016

SA= Strongly Agree, A=Agree, U=Undecided, D=Disagree and SD=Strongly Disagree

Constraints to Duck Farming

Table 2 revealed that the major constraints to duck farming in study area were lack of information and awareness about duck farming (1.794 ± 0.503), religious factors (1.575 ± 0.521), and lack of access to credit (1.275 ± 0.672). This could be attributed to the fact that information and awareness about duck farming is low and farmers are aware of duck farming but very few are aware of the practices and managements which would have been essential for practicing duck farming, this is as a result of inadequate extension services. Damisa and Ignor (2007) stated that it is expected that the higher the number of contacts farmers have with extension agents the more the participation of farmers in training such as workshops and seminars and hence, the higher the acceptance of new technologies. Other major constraints to duck farming by poultry farmers include poor access to water (0.925 ± 0.669), poor knowledge on vaccination (0.392 ± 0.522), low profitability (0.269 ± 0.445), local taboos/cultural belief (0.156 ± 0.364) and high cost of feeds (0.106 ± 0.398) and were ranked 4th, 5th, 6th, 7th and 8th respectively.

The correlation between some selected socio-economic characteristics of the respondents and the perception of poultry farmers to duck farming shows that none of the selected socio economic characteristics had significant relationship with the perception of poultry farmers to duck farming (Table 3). This might be as a result of low level of their awareness.

Perception of Poultry Farmers on Duck Farming in Kwara State, Nigeria

Table 2: Perceived Constraints to Duck Farming

Constraints	Mean±SD	Ranking
Lack of access to credit	1.275±0.672	3 rd
Religious factor	1.575±0.521	2 nd
Lack of information and awareness about duck farming	1.794±0.503	1 st
Poor access to clean water	0.925±0.669	4 th
Poor knowledge on vaccination	0.392±0.522	5 th
Low profitability	0.269±0.445	6 th
Local taboos/cultural belief	0.156±0.364	7 th
High cost of feeds	0.106±0.398	8 th

Source: Field survey, 2016 SD=Standard Deviation

Table 3: Results of Relationship between the Respondents' Perception on Duck Farming and their Selected Socioeconomic Characteristics

Variables	r-value	p value	Significance	Decision
Age	0.179	0.874	Not significant	Accept H ₀
Gender	0.323	0.220	Not significant	Accept H ₀
Marital Status	0.307	0.284	Not significant	Accept H ₀
Household Size	0.248	0.573	Not significant	Accept H ₀
Years of experience	0.402	0.103	Not significant	Accept H ₀

Source: Field survey, 2016

Rule: Reject the null hypothesis if the p-value is less than 0.05.

CONCLUSION

Based on the findings of this study, it could be concluded that the perception of poultry farmers to duck farming in Kwara state is positive, but lack of information and awareness, poor extension services, local taboos, low profitability, religious factors, lack of capital and access to credit were major obstacles to duck rearing. It is therefore, recommended that there is need for enlightenment of farmers and the general public about the nutritional, economic and other benefits of ducks. Agricultural Extension agents visit to poultry farmers should be more intensified, so as to remove the negative perception of the people towards duck production. Also, access to input supply and feeds should be at affordable costs. And finally research institutes should intensify their research to enhance the development of appropriate technologies about duck advantages and utilization.

REFERENCES

- Adeyemo, A.A. and Onikoyi, M.P. (2012). Prospects and challenges of large scale commercial poultry production in Nigeria. *Agricultural Journal*. 7 (6): 388-393.
- Damisa, M.A. and Igonor, E. (2007). The adoption of integrated soil fertility management practice among women farmers: A Logistics Model Analysis: *Journal of Agricultural Education and Extension*. 13 (2): 106-107.

- Daudu, A.K., Matanmi, B.M., Oladipo, F.O., Aliyu, A.S. and Olatinwo, L.K. (2015). Effect of Gender on farmers' level of involvement in arable crop production activities in Kwara State, Nigeria. *Journal of Production Agriculture and Technology*. 11(2).
- Ikani, E.I. (2012). Duck Production in Nigeria. *Extension bulletin* no 133, poultry series no 7. National agricultural extension and research liason services. Ahmadu Bello University. pp 1-6
- National Bureau of Statistics-NBS (2010). Socio-economic survey in Nigeria, NBS, Abuja.
- Odusina, O. and George, O. (2008). Socio economic analysis of children involved in agricultural and non agricultural enterprises in urban western Nigeria: A case study of Ijebu-Ode township. Middle East. *Journal of Scientific Research*. 2: 57-61
- Oluyemi, J.A. and Ologhobo, A.D. (1997). The Significance and Management of Local Duck in Nigeria. *Proceedings of the 2nd annual conference of animal science association of Nigeria*. September 16-17 Lagos airport hotel Ikeja, Lagos, Nigeria. Production in warm wet climates, pp: 49-106.
- Oyeyinka, R.A., Raheem, W.K., Ayanda, I.F. and Abiona, B.G. (2011). Poultry farmers Awareness and knowledge of improved production practices in Afijio, Local Government area Oyo State, Nigeria. *Journal of Agricultural Research and Development*. 1(1): 001-008.
- United States Department of Agriculture (USDA). (2013). *International Egg and Poultry Report*.