



**AN ASSESSMENT OF TRAINING NEEDS OF QUAIL FARMERS IN ILORIN, KWARA STATE, NIGERIA**

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**Abstract**

Owing to its relatively high nutritional advantage, quail bird production has attained increased popularity in Nigeria. However, quail bird farmers need to be trained on the management practices in order to ensure higher quantity and quality. The main purpose of this research was to assess the training needs of the quail farmers in Ilorin, Kwara State, Nigeria. Systematic random sampling was used to select 120 respondents from a list of Quail farmers in Ilorin metropolis. Data collected using a structured interview schedule were subjected to descriptive statistical techniques such as frequency counts, percentages, mean scores and ranks. Results showed that majority (72.5%) of the quail farmers were males with mean age of 42.3years. Majority (45.8%) of the respondents had secondary education. Workshop/seminar attendance (mean=1.6) and Extension agents (mean=1.52) were the major sources of information on quail farming in the study area. Based on the findings, the study concluded that the quail farmers needed training in some important management practices such as vaccination of birds, drugs administration, feed formulation, egg safety and cleanliness, and mortality management. Therefore, it is imperative that more training programmes should be put in place for quail farmers in order to enhance productivity.

**Keywords:** Assessment, Training needs, Quail Farmers, Ilorin, Kwara State, Nigeria

**INTRODUCTION**

Training needs assessment is one of the crucial steps towards identifying the area of farmers' interest, design and development of curriculum that can best suit the existing real conditions of farmers (Worku, 2010). Emerging trends in agricultural production techniques and scope necessitates constant updating of skills, information and knowledge to drive decision making and work paradigms that would translate into

maximum outputs and efficiency. Training programmes in agriculture are designed to develop farmers so as to make them better entrepreneurs and decision makers and to help them organize themselves into effective associations and institutions (Famuyiwa *et al.*, 2012).

Davis and Rylance (2005) suggested that training focused on enterprise skills, such as market analysis, distribution and business

management, would support small-scale farmers in identifying the technologies that would mostly benefit them, and would help them to adopt agricultural innovation. Pholonngoe and Richard (1995) underscored the necessity of needs assessment while stating that if non-formal education trainers hope to foster meaningful development, they should bear in mind that the needs of adults constantly change. Thus, training assessment should focus on designing of relevant, needs-based, educational, and skill acquisition programmes that can accommodate changes with time.

The Quail is considered to be a very promising micro poultry-farm species because it requires little capital, space and labor, and also provides high quality meat and eggs (Ijaiya, *et al.*, 2013). From pre-historic times, quails have been raised for food in Japan and America. Quails are now also reared for meat and egg in different countries of America, Asia and Africa (PM News, 2013).

Quail production contributes greatly in the fight against poverty and supplement protein food sources among rural farmers (Tunsaringkam, *et al.*, 2013)). However, majority of the farmers in Nigeria have focused on the production of chickens possibly because they lack essential trainings in quail production (Oladipo *et al.*, 2013). In the developing countries, the contribution of quails to healthy food production have been greatly ignored and/or underestimated by extension and other development workers, and policy makers in the agricultural sector (Oladipo *et al.*, 2014). Recently in Nigeria, there is an increase in quail consumption due to its nutritional

advantage over other poultry products (Egbeyale *et al.*, 2013). This should also spur a corresponding increase in its production by the poultry farmers. However, majority of the poultry farmers are still lacking in the modern way of raising their birds to enhance productivity (Farayola *et al.*, 2013). Therefore, the farmers' level of skill and knowledge need to be sought in order to know what to teach them for maximum production (Laogun, 1985). This will help them to improve on their production and consequently ensures better standard of living.

The broad objective of this study was to assess the training needs of quail farmers in Ilorin, Kwara State, Nigeria. The specific objectives of the study were to:

- i. describe the socio-economic characteristics of the respondents.
- ii. identify the sources of information among quail farmers in the study area.
- iii. examine the areas of training needed by the quail farmers in the study area.
- iv. identify constraints faced by quail farmers in the study area.

### **Methodology**

This study was carried out in Ilorin, Kwara State, Nigeria. Ilorin city is the capital of Kwara State. Kwara State is one of the six States in North Central region of Nigeria. The State has sixteen Local Government Areas (LGAs) which covers an area of 74,256sq km of the total area of Nigeria (923,768sq km, approximately one-twelfth). The population of the state is about 2.37 million (NPC, 2006). Agriculture is the main stay of the people of the state with over 80 per cent of the population living in rural

areas (NBS, 2005). The main crops grown in the study area are sweet potato, cassava, yam, cowpea, groundnut, maize, sorghum, wheat, melon, kola nut, tobacco, palm produce, okra, melon, pepper, and some leafy vegetables. Livestock reared include poultry, goats, sheep and cattle, with fishing prominent along the Lower Niger River Basin.

The population for this study comprises of quail farmers in Ilorin, Kwara State. Simple random sampling technique was adopted to capture a total of one hundred and twenty (120) quail farmers from a list of identified quail bird farmers. Data were collected from primary sources using a structured interview schedule that was administered to the respondents via trained enumerators over a period of 8 weeks. The questionnaire elicited information from respondents pertaining to their personal and farm characteristics, sources of information on quail farming, areas of trainings in quail farming and constraints faced in quail farming. Descriptive statistics was used for data analysis. The descriptive statistics used include frequency counts, percentages, mean scores for the socio-economic characteristics of the respondents and their source of information, while ranks were used for the constraints encountered by the quail farmers in the study area.

## **RESULTS AND DISCUSSION**

### **Socio-economic characteristics of respondents**

The socio-economic characteristics of the respondents are presented in Table 1. Majority (72.5%) of the respondents were male. This finding is contrary to the finding

of Okitoiet *al.*, (2007), who reported that poultry rearing, is a popular activity among the women in a household. The mean age of the respondents was 42.3 years, with majority (66.7%) within the age bracket of 30-50 years. This implies that respondents are still in their active and productive years. The age distribution among the farmers plays a crucial role in their work-rate for agricultural activities and productivity (Ugwokeet *al.*, 2005).

The results also revealed that majority (90.8%) of the respondents were married. This implies that they have the responsibility to cater for their family member(s). Majority (85.8%) of the respondents had post-primary school education. This implies that most of the quail farmers in the study area are literate. High level of literacy is expected to influence innovativeness of farmers (Adisa and Balogun, 2013).

The mean monthly income of the respondents was ₦17, 392 as only few (31.6%) earned more than ₦30, 000 income per month. This income is very low for a farmer who has the responsibility to cater for his/her household. This also showed that majority of the farmers in the study area were still under-producing and therefore will need to improve production probably by learning better ways of management/production practices.

Most of the respondents (83.3%) had between 1 to 5 years of quail farming experience. The mean years of experience in quail farming was 3.2 years. This implies that quail production is still relatively new in the study area. The mean quail population stocked by the respondents was 79 birds, as majority (61.6%) of the respondents kept

less than 50 birds at a time. The low stock might also be the reason for low income experienced by the farmers in the study area.

### **Source of information on quail production**

The major sources of information on quail production are presented in Table 2. The results revealed that the major sources of information on quail farming were through workshop/seminars attendance, extension agents and poultry farmers' association with mean values of 1.60, 1.52 and 1.45 respectively.

### **Training needs of quail farmers**

The training needs of the quail farmers are presented in Table 3. The results revealed that farmers need trainings in the following tasks: egg safety and cleanliness ( $x=9.32$ ), feed formulation ( $x=8.89$ ), mortality management ( $x=8.1$ ), vaccination of birds ( $x=6.41$ ), drugs administration ( $x=6.37$ ), fumigation of poultry house ( $x=5.68$ ) and brooding operations ( $x=5.35$ ). These findings indicate that the identified areas of training needs are very relevant to knowledge and skills required for higher productivity in quail production.

### **Constraints faced in quail production**

The constraints faced by quail farmers are presented in Table 4. The results revealed that the major constraints faced are low demand, inadequate access to extension services and inadequate access to required species/breed ranking 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> respectively. The above findings are in agreement with the findings of Prakash *et al.* (2003).

### **CONCLUSION**

Based on the findings, the study concluded that the quail farmers needed training in the areas of vaccination of birds, drugs administration, feed formulation, fumigation of poultry house, brooding operation, egg safety and cleanliness, and mortality management. Furthermore, low demand, lack of frequent access to extension services and lack of access to required quail species/breed were found to be the major constraints affecting quail production in the study area.

### **RECOMMENDATIONS**

Based on the findings of the study, the following recommendations were suggested:

1. Extension agents and other stakeholders should organize more training programmes for quail farmers especially in key areas such as vaccination of birds, drugs administration, feed formulation, fumigation of poultry house, brooding operation, egg safety and cleanliness and mortality management.
2. There should also be intensive public awareness on the consumption of quail products such as egg and meat to encourage poultry farmers to go into quail production and also to enhance the nutritional conditions of both the farmers and the public in the study area.

### **REFERENCES**

- Adisa, R.S. and Balogun, K.S. (2013). Impact of improved technologies on small-scale soybean production:

- Empirical evidence from Benue State, Nigeria. *Pakistan Journal of Agricultural Science*, 50(2):305-310.
- Crawford, J. A. (2000). Historic distribution of mountain quail in the Pacific Northwest. In Quail: Proceedings of the fourth National Quail Symposium, Eds, Brennan, L.A., Palmer, W.E., Burger (Jr.), L.W. and Pruden, T.L. 194-7. Tall Timbers Research Station: Tallahassee, FL.
- Davis, J. and Rylance, C. (2005). Addressing poverty through local economic and enterprise development: A Review of conceptual approaches and practice. *Working Paper 3, Natural Resources Institute*.
- Durston, J. (1996). Background Papers: Comparative international analysis of rural youth policy in developing countries: Coping with diversity change. pp. 45-61. In: Expert consultation on extension rural youth programmes and sustainable development. FAO, Rome.
- Egbeyale, L.T., Fatoki, H.O., and Adeyemi, O.A. (2013). Effect of egg weight and oviposition time on hatchability and post hatch performance of Japanese quail (*Coturnixcoturnix japonica*). *Nigerian Journal of Animal Production*, 40:102-110.
- Famuyiwa, B.S, Adesoji, S.A. and Lawal, J.O. (2012). Training needs of smallholder cocoa farmers in integrated pest management techniques: An antidote to sustainable cocoa production in Osun State, Nigeria. *International Journal of Applied Research Technology*, 1:37-46.
- Farayola, C.O., Adeyemo, A.A., Nwachukwu, S.C. and Yusuf, A. (2013). Extension strategy development and training needs for small scale commercial poultry farmers in Nigeria. *Journal of World's Poultry Research*, 3(4):99-105.
- Ijaiya, A.T., Aremu, A., Egena, S.S.A., Jiya, E.Z., Akinwale, M.O., Malik, A.A. and Mamman, H. (2013). Growth response and egg production of Japanese quails (*Coturnixcoturnix japonica*) fed diets containing varying levels of fermented cassava (*Manihotesculenta*) peel meal. 19th European Symposium on Poultry Nutrition held between 26th – 29th August, 2013 at Potsdam, Germany.
- Laogun, E.A. (1985). Perception of farmers' training needs: A case study of Soya. Rural Development Project in Oyo State. *The Nigerian Journal of Agricultural Extension*, 3(1&2):12-15.
- National Bureau of Statistics (NBS) (2005). "Poverty Profile for Nigeria". Federal Republic of Nigeria. Annual Reports.
- National Population Commission (2006). The Nigeria Population Census (2006). <http://www.population.gov.ng/index.ph>
- Oladipo, F.O., Olorunfemi, O.D., Adefalu, L.L., Matanmi, B.M. and Bello, O.G. (2014). Awareness of poultry farmers on quail production in

- Kwara State, Nigeria: Implication for protein nutritional sustainability in Nigeria. *Journal of Sustainable Development in Africa*, 16(4):1-10.
- Okitoi, L.O., Ondwasy, H.O., Obali, M.P. and Murekefu, F. (2007).“Gender issues in poultry production in rural households of Western Kenya.*Livestock Research for Rural Development*, 19(2):1-2
- Pholonngoe, M.B. and Richard, L. (1995).Training manual for non-formal and adult education trainers. Extension Educator, Maseru: Lesotho Association of NFP.
- PM News (2013).Quail farming for quick cash.Published on March 1, 2013 by [PM News](#).
- Prakash, N., Kumar, R. and Pal, P.P. (2003).Backyard poultry in Meghalaya.*Indian Journal of Animal Sciences*.73:459-461.
- Tunsaringkarn, T., Tungjaroenchai, W. and Siriwong, W. (2013). Nutrient benefits of quail (*Coturnixcoturnix japonica*) eggs. *International Journal of Scientific and Research publications*, 3(5).
- Ugwoke, F.O., Adesope, O.M. and Ibe, F.C. (2005).Youths participation in farming activities in rural areas of Imo State, Nigeria: Implications for extension. *Journal of Agricultural Extension*, 8:136-141.
- Worku, B. T. (2010). Effectiveness of modular training at famers’ Training Centers: The case of MiesoWoreda, Oromia Region, Ethiopia. M. Sc. Thesis, Department of Rural Development and Agricultural Extension, Haramaya University.

Table 1: Socio-economic Characteristics of Quail Farmers in Ilorin, Kwara State

<b>Characteristics</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Mean</b>
<b>Gender</b>			
Male	87	72.5	
Female	33	27.5	
<b>Age bracket (years)</b>			
≤30	14	11.6	42.3
31-40	38	31.7	
41-50	42	35	
>50	26	21.7	
<b>Marital status</b>			
Married	109	90.8	
Single	11	9.2	
<b>Educational level</b>			
No formal Education	1	0.83	
Primary Education	16	13.3	
Secondary Education	55	45.8	
Tertiary Education	48	40	
<b>Quail Farming Income(Naira)</b>			
<10000	26	21.7	17,392.
11000-20000	56	46.7	
21000-30000	29	24.2	
31000-40000	6	4.9	
>40000	3	2.5	
<b>Quail Farming Experience(Years)</b>			
≤5 years	100	83.3	3.2
6-10	12	10.0	
>10	8	6.7	
<b>Bird Number</b>			
<50	74	61.6	78.70
51-100	17	14.2	
101-150	9	7.5	
151-200	17	14.2	
>200	3	2.5	

Source: Field Survey (2015)

Table 2: Information Source on Quail Farming

<b>Information sources</b>	<b>Most preferred</b>	<b>Preferred</b>	<b>Not preferred</b>	<b>Mean Score</b>	<b>Rank</b>
Radio station	34	70	16	1.15	5 <sup>th</sup>
Television station	52	45	23	1.24	4 <sup>th</sup>
Workshop /seminar attendance	75	42	3	1.60	1 <sup>st</sup>
Newspapers	23	66	31	0.93	7 <sup>th</sup>
Poultry association	60	54	6	1.45	3 <sup>rd</sup>
Extension agent	67	48	5	1.52	2 <sup>nd</sup>
Friends	32	69	19	1.10	6 <sup>th</sup>

Source: Field survey (2015)

Table 3: Training Needs of Quail Farmers (FAO Model)

<b>Training task operations</b>	<b>Frequency of performance</b>	<b>Level of importance</b>	<b>Level of proficiency</b>	<b>Mean score</b>	<b>Remarks</b>
Vaccination of birds	1.69	2.35	2.37	6.41	Training required
Drugs administration	1.77	2.23	2.37	6.37	Training required
Fumigation of poultry house	1.27	1.92	2.49	5.68	Training required
De-beaking of birds	0.58	1.70	2.01	4.29	Training not required
Feed formulation	4.98	1.73	2.18	8.89	Training Required
Egg safety and cleanliness	4.73	1.89	2.70	9.32	Training Required
Brooding operation	0.93	2.55	1.87	5.35	Training required
Mortality management	3.28	2.29	2.53	8.1	Training required

Source: Field Survey (2015)

Table 4: Distribution of respondents according to severity of constraints to quail production

Constraints	Very severe	Moderately Severe	Severe	Not Severe	Mean score	Rank
High market prices of feed	4	19	19	78	0.58	9 <sup>th</sup>
Inadequate technical know-how on birds' vaccination	4	31	35	50	0.9	8 <sup>th</sup>
Diseases prevalence	3	38	55	24	1.17	5 <sup>th</sup>
Low demand	53	39	25	3	2.18	1 <sup>st</sup>
Low humidity	3	32	37	48	0.92	7 <sup>th</sup>
Lack of access to required quail species/ breed	20	33	49	18	1.46	3 <sup>rd</sup>
Difficulty in raising of quail with other poultry birds	5	29	44	42	0.98	6 <sup>th</sup>
Mortality rate	10	46	50	14	1.43	4 <sup>th</sup>
Lack of frequent access to extension agent in the area	31	12	61	16	1.48	2 <sup>nd</sup>

Source: Field Survey (2015)