

FARMER'S PERCEPTION ON ORGANIC POULTRY PRODUCTION IN KWARA STATE, NIGERIA

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ABSTRACT

Organic Poultry Production is a system devoid of the use of cages, synthetic antibiotics, genetically modified organism etc. This study assessed the perception of poultry farmers on organic poultry production in Kwara State, Nigeria. A structured questionnaire was used to elicit information from 158 respondents. Descriptive statistics such as frequency count, percentages and mean score were used to collect data. The results of the analysis showed that 71.5% of the poultry farmers were males, the mean age of the farmers was 42 years, 85.4% were married while the mean years of education was 8.7 years. About 53.7% of the respondents were aware of consumer's concerns about chemical residues in chicken. The more pressing constraints were lack of adequate information and awareness on organic poultry production. The study therefore concluded that the perception of poultry farmers to organic poultry farming in Kwara state is negative due to lack of adequate information and awareness. Therefore farmers and the general public need to be more enlighten by Agricultural agents and other relevant stakeholders on the health, nutritional benefits and management skills of organic poultry farming in the study area.

Keywords: *Farmers Perception; Organic system; Poultry Production*

INTRODUCTION

Agriculture in Western Europe has developed rapidly, putting more effort on organic farming, particularly the poultry industry has focus more attention towards addressing public health concerns for environmental and food safety. Due to this rapid development, the market for organic poultry products is vibrant and growing, meeting the consumer's demand for organic product with the land area which is organically managed, expanding to over 1.3 million ha on 60,000 farms by 2017 (FAO; 2015). However, In Nigeria, agriculture is a major source of livelihood having about 65 - 70% of over 140 million population engaged in agricultural production (NBS, 2006). As noted by Ologbon and Ambali (2012), in Nigeria, poultry contributes about 15% of the total annual protein intake with approximately 1.3 kg of poultry products consumed per head per annum. Poultry production is carried out in all part of the country with no religious, social or cultural inhibitions associated with their consumption (Adeyemo, 2012). Poultry meat accounted for about 17% of meat production in 1975 and in the year 2000 it accounted for about 27% of meat production (FAO 2000). This shows that the poultry sector of modern world has transformed from backyard rearing to commercial organized, scientific and vibrant industry in last four decades.

Nevertheless, consumers of poultry product are becoming more aware of safety and quality of food products consumed by them and as the Purchasing Power (PP) of common people is increasing persistently, they are interested to consume safer product without bothering to pay more (Dodamani 2011). Atteh, (2004) opined that, the changing world about animal welfare and special nutritional demand by consumers has resulted in some turnaround from the sophisticated intensive to organic/extensive/free range systems of poultry production in developed countries.

Organic chicken meat can be summarized as the product of a rearing system that entirely avoids the use of conventionally-grown feedstuffs, including genetically modified organisms, animal by-products, and synthetic additives, feeding birds only with organically-grown cereals, oil, seeds and roughage. Purchasing statistics indicate that consumers are increasingly interested in naturally-produced or environmentally-friendly products that they perceive as having high level of nutrition, no contaminants and good flavor (Sundrum, 2001). The herbicides and pesticides that are sprayed on conventional grass are completely avoided. Indeed, there is a common belief that organic chicken meat is safer and more nutritious than that of conventional broilers, and therefore, an increasing number of consumers are willing to pay a premium for certified organic chicken meat (Magdeliane and Bloch, 2004). Chicken meat has become the most important organic meat due to its short production cycle, which permits producers to quickly increase supply.

Charlotte (2014) had earlier reported that there is need for more published information about the awareness, biosecurity, disease detection and prevention on organic poultry production. It was also reported by Jones and Crane (2009) that there is evidence that conventional poultry production systems result in higher levels of Omega 6 compared to Omega 3 fatty acids- making both the eggs and the meat less healthy than that from free range and organic poultry production systems. Therefore a new approach to food and farming is needed and it must strike an optimal balance across animal welfare, environmental, safety, social and economic needs. (Heather, 2013). It has been established that regardless of the growing popularity of organic animal husbandry, which is partly a result of environmental awareness among farmers and partly related to increasing consumers demand for organic products, there are only a limited number of farmers who adopt organic poultry practices in a large scale in the study area. Scientific publications related to animal health and welfare in such systems is also minimal (Atteh,

2004). Many poultry farmers in Kwara State are yet to spring up with full implementation of organic poultry production in a large scale. It is therefore important to ascertain Farmer's perception on organic poultry production in Kwara State, Nigeria. Specifically, the study describes the socio-economic characteristics of poultry farmers, ascertain the awareness of poultry farmers in organic poultry production, examine the perceived knowledge level of poultry farmers on the advantages of organic poultry production and identify the constraints to organic poultry production in the study area.

MATERIALS AND METHODS

This study was carried out in Kwara State which is one of the 36 states that make up the Federal Republic of Nigeria. It is geographically located between latitude $8^{\circ} 5' - 10^{\circ} 4' \text{ N}$ and longitude $4^{\circ} 55' - 6^{\circ} 5' \text{ E}$ covering an estimated land area of $32,500 \text{ km}^2$ (KWADP, 2012) which is about 3.5% of the total land area of the country, with the land area of $923,768 \text{ km}^2$ (KWSG, 2006). Kwara State has a population of about 2.4 million (NBS, 2010). Kwara State shares boundary with Osun, Oyo, Ondo, Kogi, Niger and Ekiti States as well as an international boundary with the Republic of Benin in the west. The State occupies is found within tropical climate characterized by double rainfall maxima and wet and dry seasons (Olanrewaju, 2009). The experiences rainfall which ranges annually from 1000 mm to 1500 m. Rainy season begins around late March and ends September, while the dry season starts in October and ends in March. The climatic condition of Kwara State supports tall grasses mixed with short randomly distributed trees. This characteristic allows the people residing in the area to make farming their major 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 (Ajadi et al., 2011). The State is made up of 16 Local Government Areas (LGAs) namely Asa, Baruten, Edu, Ekiti, Ifelodun, Ilorin-East, Ilorin-west, Ilorin-south, Irepodun, Isin, Kaima, Moro, Offa, Oke-Ero, Oyun and Pategi. The target sample for the study is the entire populations of registered poultry farmers in Kwara State Nigeria. All the 158 registered Poultry farmers in the State were interviewed through the use of well-structured questionnaire. The number of registered poultry farmers were gotten from the Poultry farmers Association and all of them are commercial farmers, i.e those poultry farmers that resgistered with the association are the respondents of this research work (Poultry Farmers Association. 2017).

Descriptive statistics such as frequency count, percentage and mean score were used to analyze the socio economic characteristics of the poultry farmers, ascertain the awareness of poultry farmers in organic poultry production. To assess farmers perception on organic production, A list of management practices on organic poultry production was presented and farmers indicates the common management practices. To determine the perceived knowledge of poultry farmers on the advantages of organic poultry farming, a five point Likert scale of strongly agreed, agreed, undecided, disagreed and strongly disagreed was adopted. The value of the five responses was sum up and further divided by 5 to obtain 3 which was regarded as the mean. Any variable with 3 or above were regarded as relevant. Constraints to organic poultry farming were listed and the respondents were asked to indicate their perceived constraints. A Likert type scale of 3 as Very serious, 2 as serious and 1 as not serious was used. These variables were summed up to obtain 6 and divided by 3 to get 2. Variables with 2 or greater than 2 were considered as possible constraints to organic poultry production in the study area.

RESULTS AND DISCUSSION

Socio-economic characteristics of the respondents

Results on Table 1 showed that the mean age of the farmers is 42 years which indicated that poultry farmers are in their active age and are therefore matured enough to take decision on the practice of organic poultry. Out of these, 71.5% were males while 28.5% were females which implied that more males participated and benefited from poultry production. The result also revealed that most (85.4%) of the respondents were married, this is an indication of the fact that marriage is held as a serious institution especially in rural areas of the country as no adult would be deemed responsible without it (Yekinni and Ajayi, 2011). Mean years of education of respondents was found to be 9 years which is an indication that the poultry farmers are literate at different levels. Respondents had 8 persons as mean household size which indicated a fairly large household. This household status can also go a long way in helping them in their livestock production because it suggests available labour to the livestock farmers. Table 1 also revealed that 83.1% of the respondents had above 500 birds According to Adeyemo and Onikoyi (2012) the main poultry production systems in Nigeria can be divided into 2 groups' subsistence and commercial. This implied that majority of the respondents are commercial poultry farmers. The mean years of experience on poultry production is 10 years which implies that experienced farmers are involved in poultry production and it is also a long age farming activity in the study area.

Responsiveness of poultry farmers on organic production

The result from Table 3 showed that out of the 4 basic things to know about organic poultry farming, 70.8% of respondents are aware of organic poultry farming, 21.5% are aware of different practices in organic poultry farming, 53.7% are aware of the consumer's concern about chemical residues in chicken and 37.9% are aware of high demand for organic chicken. The responsiveness of the poultry farmers may be attributed to the fact that

most of the respondents had undergone tertiary education and this factor may increase the level of awareness of organic poultry farming, because education may make an individual more receptive to the advice from an extension agency or more able to deal with technical recommendation that requires certain level of literacy which agrees with Ani 2007 that education is a continuous issue and there is a positive correlation between education and farm efficiency.

Table 1: Socioeconomic characteristics of the respondents

Socio-Economic Characteristics	Percentage	Mean
Age (Years)		
≤30	10.8	
31-40	17.7	42.3
41-50	36.1	
51-60	23.4	
Above 60	12.0	
Gender		
Male	71.5	
Female	28.5	
Marital Status		
Single	10.1	
Married	85.4	
Divorced	1.9	
Widowed	1.9	
Religion		
Christianity	41.7	
Islam	59.4	
Traditional Worshippers	0	
Level Of Education(Years)		
No Formal Education	0	
Primary Education	6.3	8.7
Secondary Education	27.2	
Tertiary Education	66.5	
Household Size(Persons)		
1-4		
5-8		7.4
9 and above		
Number Of Birds		
Below 500		
501-1500		
1501-2500		
Above 2500		
Years Of Farming Experience		
≤ 5	30.4	
6-10	40.5	10.2
11-15	18.4	
Above 15 years	10.7	

Source Field survey 2017

Table 2: Awareness on organic poultry farming and practices

Awareness of organic poultry	Percentage*
Are you aware of organic poultry farming	70.8
Are you aware of different management practices in organic poultry farming	21.5
Are you aware of the consumer's concern about chemical residues in chicken	53.7
Are you aware of high demand for organic poultry	37.9

* Multiple responses. Source: Field Survey, 2017

Sources of awareness of poultry farmers on organic farming

Table 3 showed that a higher percentage (34.2%) of the poultry farmers became aware of organic poultry farming through farmer's cooperatives and only (19.2%) became aware through television, (20%) became aware through extension agent or ADP, (25%) through print media and (27.5%) through family member. This showed that extension has the lowest percent and this result is in line with the findings of Oyeyinka *et al.* (2011) which ascertain that extension agents in Kwara state have not been disseminating adequate information on organic poultry production techniques.

Table 3: Distribution of respondents based on their sources of awareness of poultry farmers to organic poultry farming

Sources of awareness	Percentage
Farmers' cooperative	34.2
Radio	29.2
Family member	27.5
Print media	25.0
Extension agent	20.0
Television	19.2

*Multiple responses. Source: Field Survey, 2017

Perceived knowledge of poultry farmers to the advantages of organic farming in Kwara State

The result in Table 4 revealed the perceived knowledge of the respondents on the advantages of organic poultry farming. These included that organic birds are less expensive compare to other organic meat and it is attributed to the fact that organic birds are mini livestock and rearing does not require elaborate housing as they require moderate space to shed at night and let loose during the day for organic feed followed by the fact that organic eggs are rich in omega 3 fatty acid and consequentially balanced with omega 6 fatty acid. Another advantage is that organic meat is tastier than conventional meat. According to Oluyemi and Robert (2007) Organic meat are better in meat quality than conventional 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 organic meat was rated 9.0 to 7.1 of conventional broiler meat. Other advantages include the fact that organic meat have high potential to improve health status due to its natural way of rearing, lesser fat and rich in omega 3 fatty acid, studies have found that people who consume omega-3s regularly are less likely to be depressed. According to Atteh (2014) consumers have reported improved health with consumption of organic poultry products. Another advantage is that, it is safer to consume organic chicken than the conventional chicken and this is attributed to the fact that high combination of chemicals used in rearing conventional birds have contributed to human health challenges such as cancer, heart disease, drug resistance etc. Atteh (2014) stated that, there is a general consumer feeling that they are consuming natural products as oppose to chemicals.

Table 4: Perceived knowledge of poultry farmers on the advantages of organic production

Advantages of organic poultry farming	Mean score	Ranking
Less expensive compare to other organic meat	2.74	1 st
Organic eggs are richer in omega 3 fatty acid.	2.37	2 nd
Organic meat is tastier	2.36	3 rd
Improve health status	2.09	4 th
Organic chicken is safer than conventional chicken	2.05	5 th
Organic birds are more active than conventional birds	2.00	6 th

Source: Field Survey, 2017

Constraints to organic poultry farming

In Table 5, the major constraints to organic poultry production in Kwara State were mainly lack of information and awareness about organic poultry farming. This could be attributed to the fact that information and awareness about organic poultry farming is low and according to Table 3 the poultry farmers are aware of organic poultry farming but very few are aware of the practices and management skills which would have been essential for practicing organic poultry farming. This may be as a result of inadequate extension services. According to Okunola *et al.* (2005), extension contacts have been found to be a vital factor in the adoption of technologies. It is essential that if farmers must adopt organic poultry farming and raise birds with natural feeds and other inputs, extension workers must be regular with relevant information and awareness. Damisa (2007), also stated that it is expected that the higher the number of contacts farmers have with extension agents the more the participation of farmers in trainings such as workshops and seminars and hence, the higher the acceptance of new technologies. Other constraints are Lack of capital, intensive labour, lack of access to organic feed and inadequate credit facilities affects adoption potential because adding organic poultry farming to their already established farms will be associated with high capital demand. Sundrum (2011) posited that if credit is provided under proper conditions, well managed production credit can give agricultural development a rapid growth by accelerating the rate of adoption of improved technology by farmers who would be prevented from using it. Low profitability is also one of the constraints to organic poultry farming by poultry farmers in Kwara state, this is attributed to other constraint like lack of information and awareness that will not make people patronize the poultry farmers raising organic birds and consequential reduce its profitability.

Table 5: Perceived constraints to organic poultry production in the study area

Constraints	Mean ($\bar{X}$)
Inadequate Knowledge about Organic Poultry	2.89*
Lack of capital	2.65*
Lack of access to organic input	2.58*
More labour intensive	2.54*
Inadequate credit facilities	2.35*
Low profitability	1.36

Source: Field survey, 2017 *Very serious constraint ($\bar{X}$) = 2.00

CONCLUSION

Based on the facts available from the study, it was concluded that rearing of organic birds in the study area is not popular, despite the fact that the bird possesses the qualities inherent in other conventional poultry birds. It was also made known that the perception of poultry farmers to organic poultry farming in Kwara state is negative due to lack of information and awareness, poor extension services, low profitability, more labour intensive, lack of capital and access to credit. Therefore, it is recommended that; Agricultural agents visit to poultry farmers should be more intensified, so as to remove the negative perception of the people towards organic poultry production. Also access to input supply and feeds should be at affordable costs.

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