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## **Challenges of poultry layers production in Kumbotso local government area of Kano state Nigeria**

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### **Abstract**

The study assessed constraints to increased layers production among poultry farmers in Kumbotso Local Government Area of Kano state Nigeria. Data were collected using purposive sampling technique to select 70 poultry farmers. Descriptive statistics (frequency and percentage) were used to describe the socio – economic characteristics of the respondent the constraints of poultry layer production were measured with 3 point scale, major constraints and not constraints. The results shows that the major constraint faced by the respondents was disease and pest attack (88%) followed by difficulty in credit and loan procurement processes. 78.5 percent of the respondents were faced by the purchase of day of the chicks. 75.7% were faced with constraints of high cost of feed. The result also indicates that 71.4% were faced with constraints of cost of drugs and vaccines while 70% were encountering with higher rate of motility. Government should tackle the problem of disease and pest, loan/credit procurement, market price instability as well as proper funding of layers poultry business so as to enhance the Commercialization of poultry industry in Nigeria.

**Keywords:** Poultry, Increased layers production, constraint, Kumbotso, Kano state

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### **Introduction**

The poultry industry is very important to the Nigerian economy because it provides a good source of animal protein in meat and eggs (Wethli, 2005) <sup>[17]</sup>. Proteins play important role in the formation of a balanced human diet which is essential for the good health and productive capacity of the people (Abedullah, Bukhah and Maqbool, 2007) <sup>[1]</sup>. According to Wethli (2005) <sup>[17]</sup>, poultry production is one of the most profitable agricultural enterprises and it is this accruing return from the enterprises that can be used to improve the life of rural dwellers. Tijjani, Alimi, and Adesiyan (2006) <sup>[16]</sup> reported that eggs have a number of uses apart from domestic consumption in household. They are used in confectionery, bakery products, ice cream and cosmetics. Egg shell is a good of calcium. Poultry production constitutes an important component of the agricultural economy in developing countries and it is an instrument of socio economic change, improved income and quality of rural life in Nigeria (Okumadewe, 1999). Despite the acknowledge importance of poultry production Akanni (2007) <sup>[5]</sup> opined that it is characterized by low production level due to limited finance for the procurement of basic poultry equipment and materials.

The major constraints in poultry production, cost of feeds, chicks, labour, veterinary changed, drugs, vaccines and equipments (Sonaiya and Swan, 2004) <sup>[15]</sup>. The industry makes it difficult for expansion and new producers find it hard to start a business. The constraints may also include the outbreaks of diseases, marketing, management, inputs materials, poor feeding, financial institutions to grants loans (resources), poverty, poor planning and execution of these plans, housing and management.(Dafwang, 2002) <sup>[9]</sup>. It is hoped that the findings of this study will aid policy makers to develop policies addressing poultry layers production in the study area. In this regard, the study determined the socio-economic factors influencing poultry layers production.

### **Objectives**

The objective of this study is to determine the socio-economic factors influencing poultry layers production, the possible solutions to the constraint and recommendations.

### **Materials and Methos**

#### **Description of the Study Area**

The study was carried out in Kumbotso Local Government Area of Kano State. The Local Government has ten ward head namely Tamburawa, Karfi, Kumbotso, Chiranci, Naibawa, Panshekara, Challawa, Gasau, Jaen, and Gundutse respectively. The climate ranges from Sudan vegetation zone and some trees of Guinea savannah. The rainfall commences from to September. The average annual rainfall was 870.20mm and maximum temperature are 35°C - 40°C. the population of 1,754.200 million inhabitants who are mainly Hausa/Fulani and 80% of them engaged in farming (NPC, 2006) <sup>[16]</sup>.

### **Sampling Techniques**

A purposive sampling technique was used in selecting the villages (ward head) and respondents. The selection of the villages was based on the intensity of the respondents on the large volume of poultry (layer) production. Seven villages were selected out of ten villages and they are Kumbatso, Panshekara, Gundutse, Tamburawa, Karfi, Niibawa and Challawa. A total of 70 respondents were selected in the seven villages in which ten farmers were selected in each village.

### **Method of data Collection**

Primary data were collected using structured questionnaires. The data collected were those on socio-economic characteristics of

the respondents, the possible solutions to the constraints and recommendation.

### Analytical Techniques

The tools for the data analysis used for this research work include descriptive statistics, frequencies and percentages. The constraints to poultry layers production was measured with 3 point scale: major constraint, minor constraints and not constraint.

## Results and Discussion

### Socio economic characteristics of the respondents

Table 1: Indicates that (70%) of the respondents were male. This implies that with popular belief about the study area, that farming was the major occupation which male folks dominate (Mohammed, 2004). Table 1: indicates that most (58.5%) of the respondents were between the ages of 21- 40 years. This implies that the farmers are within the economic productive age which is in agreement with the findings of Abubakar (2002) <sup>[2]</sup> and Bamiro *et al* (2006) <sup>[6]</sup> reported that farmers within the range of 21- 40 years are in their productive age and they will be able to make fast management decisions as well as taking risks in expectation of profit. Also the results indicates that (78.5%) of the respondents were married while (14.2%) and (7.1%) are single and widowed respectively. Most (62.8%) of the respondents had higher education which could make them to take good decisions in their business. The results further reveals that (78.5%) of the respondents had more than 6 people in the household. It implies that respondents with family size above 6 people would have more hand to work in their poultry which could aid increase in their output.

**Table 1:** Socio-economic characteristics of the Respondents

Variables	Frequency	Percentage
Sex		
Male	49	70
Female	21	30
Age (years)		
Less than 20	9	12.8
21- 40	41	58.5
41 – 60	12	17.1
Above 60	8	11.4
Marital Status		
Single	10	14.2
Married	55	78.5
Widowed	5	7.1
Level of Education		
Non farmer	2	2.8
Primary	18	25.7
Secondary	6	8.5
Tertiary	44	62.8
Family Size		
1 – 2	5	7.1
2 – 5	10	14.2
More than 6	55	78.5
Years of experience		
Less 5	42	60
5 - 10	18	25.7
Above 10	10	14.2

*Source:* Field Survey, 2018.

Table 1 also indicated the level of experience of the respondents, 60% of the respondents had less than 5 years while 14.2% of the respondents had above 10 years of experience. Little years of experience could be the reason for low layer production among the layer farmers. The knowledge on management, which is a key to profitable poultry production, is gained through years of experience of the poultry farmer (Fetuga, 1992) <sup>[10]</sup>.

**Table 2:** The constraints of the layer production

Constraints	Major constraint Frequency	%	Minor constraints Frequency	%	Not constraints Frequency	%
Disease and pest attack	62	88	7	10	1	1.4
Cost of drugs and vaccines	50	71.4	12	17.1	8	11.4
Market/price fluctuation	47	67	21	30	2	2.8
Accessibility of feed	42	60	22	31.4	6	8.5
Accessibility of labour	15	21.4	20	28.5	35	50
Unavailability y of land	18	25.7	50	71.4	2	2.8
Difficulty in credit and loan procurement processes	60	85.7	15	21.4	5	7.1
Purchase of healthy day old chicks	55	78.5	12	17.1	3	4.2
Cost of feed	53	75.7	15	24.4	2	2.8
Rate of mortality	49	70	20	28.5	1	1.4
Packing and disposal of the Layers dropping	41	58.5	24	34.5	5	7.1
Lack of quality ingredients for feed formulation	45	64.2	16	22.8	9	12.8
Lack of technical knowhow in handling poultry	39	55.7	21	30	10	14.2

*Source:* field survey (2018)

Table 2: shows that 88% of the respondents poultry was faced with diseases and pest attack as a major constraint, this is because most of the poultry farmer could not identify the symptoms of disease earlier enough to prevent disease outbreak which is a major threat that wipe out many of the poultry in developing countries. Most (85.7%) of the respondents were also faced with uneasy access to loan and credit procurement, this was in line

with reports of Agbato, 1997. Adebayo and Adeola (2005) <sup>[3]</sup> also confirmed that credit facilities or loans from financial institutions not accessible to the poultry farmers in rural areas. Also, the problem of collateral security that may be needed by the financial institutions before granting loans to prospective famers (Bamiro *et al*, 2006) <sup>[7]</sup>. Market price fluctuation and non-availability of land were also pointed by the respondents as constraints to

increase layer production. Meanwhile, 55.7 percent of the respondents lack technical knowledge required in the poultry business. Olaniyi *et al* (2008) [14] opined that lack of technical knowledge is a major constraint that militates against major poultry production. More than 70 percent of the respondents indicated that rate of mortality of their laying is a major constraint to increase their layer production. This is line with Chitate and Guta (2001) [8] that observe that mortality was the major constraint to village chicken productivity. Lack of quality ingredient for feed formulation was also indicated by 64.2 percent of the respondents to be a major constraint while 75.7 percent layering birds was a major problem encountered which prevented them from increasing their layers production. The high cost could be linked also to the lack of quality ingredient for feed formulation because the available quality ingredient may be costly and thereby affecting the price of the feed. The implication of this is that if the cost of feed is higher and poultry farmer could not afford it then it will affect the number of birds they can keep. Lack of the feed for the mother hen and the chicks was the main reason for not confining poultry birds, chick confinement has been known to reduce losses from predators, and however, it comes at a cost to the farmer in terms of increased feed (Sonaiya and Swan, 2004) [15].

Table 3: possible solutions to the constraints to increase layers production

Table 3: Indicates the respondents' likely solution to the various constraints that affect the increase in production of layers. About 28.5 percent of the respondents indicated that provision of easy access to loan procurement will proffer solution to the constraints they are facing in increasing layer production. Some (21.4%) of the respondents pointed out that stable market price for the sale of egg could also encourage poultry farmers to increase their production since they are assured that they will be able to sell their eggs at a good price to the people regardless of season they produce more egg because there is stable market price for the sale of egg. Provision of adequate land for poultry production was suggested as a solution by 15.7 percent of the respondents, although it is a few proportion that indicated that provision of land will assist in increasing layers poultry production but it is a vital suggestion because without land, poultry farms cannot be established and were is proposed to be sited close to residential buildings most of the times the residents of such area protest about the location of poultry in their neighborhood knowledge and technical know-how in any business is very important so as to be able to handle such business properly and efficiently. 12.8 percent of the respondents indicated that adequate training should be provided so as to educate and enlighten the farmers. Meanwhile, only 7.1% of the respondents indicated that the provision of quality ingredients for poultry feed will proffer solutions to the constraints faced by the farmers. It is probably because many of the poultry farmers mostly at times purchase feed they utilized for their birds. So if there is more supply of the quality ingredient for formulation and compounding, then the constraint of high cost of feed to nourish their laying poultry birds' production. It is also indicated that, 14.2 percent of the respondents, shows provision of vaccines and drugs at cheaper price will increase in time needed by the farmers.

**Table 3:** Possible solutions to the constraints to increase layers production

Possible solutions	frequency	Percentage
Easy access to credit/loan procurement	20	28.5
Stable market price for sale of egg	15	21.4
Provision of adequate land for poultry production	11	15.7
Provision of adequate training in handling poultry	9	12.8
Provide quality feed ingredient	5	7.1
Provision of vaccines against diseases and pests attract.	10	14.2

*Source:* field survey 2018.

### Conclusion

The study established that majority of the respondents in the study area were young and educated which could help them to be innovative. They also perceived that there would be increased profit if they can increase their layer production which could help them to improved their well-being and raise their standard of living. Mean-while, the major constraints that militating the layer production as identified by this study were disease and pest outbreak, non-availability of credit/loan facilities as well as the lack of technical know – how to handle the poultry profitable.

### Recommendation

- It is therefore recommended that the layer poultry farmers should be encourage forming co-operative society or joining existing one to be able to access loan to their business.
- Government should also make fund available to assist the layers poultry farmers.
- Provision of capacity training of poultry farmers by the government to enable them to cope with the challenges of modern poultry farming.
- Government should make policies specifically for transformation of the poultry industry. This will assist in removing the challenges of poultry farms and thereby creating a favorable environment to increase layer production among poultry farmers.

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