

PROBLEM OF POULTRY PRODUCTION UNDER INTENSIVE SYSTEMS IN EBONYI LOCAL GOVERNMENT AREA OF EBONYI STATE, NIGERIA

BY

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Abstract

The aim of this study was to find out the problem of poultry production under intensive system management in Ebonyi Local Government Area. Questionnaires were used for data collection simple random sampling techniques were used in selecting 50 workers from five poultry establishment. Mean was used to analysis the data collection. After analysis, the following findings were fund as problems to the poultry production. High rentage of land for poultry production leads to increase operational loss. Cannibalism occur in chickens when they are not well fed, thus leading to loss of bird. High humidity is an important cause death of poultry during the rainy season. The kind of food given to the poultry will affect the production of poultry. High temperature causes high rate of mortality. Bad environmental conditions affect the growth of birds under intensive system of management. The researcher made some useful recommendation that will help in showing the problem identified.

Key words: Problem, Poultry Production, Intensive System.

Introduction

The domestic chicken (domestic fowl) is one of the common species of poultry chickens, duck, goat and turkey, which are raised in Nigeria and other parts of the world. It has assumed a worldwide important and remains the most popular among the poultry farmers.

Fowls are reared especially for meats and eggs production. The importance of fowl or chickens as a quick source of income and a good source of nutrient, make it the most popular farm animals among farmers. A day old broiler checks and layer chicks if given adequate management weight 1.5kg dressed carriass at maturity and may start laying eggs within 20weeks of age respectively (Overic 1983) This also shows that chickens eggs rank second if low milk in quality and remains the most economically produced animals protein.

The modern domestic chicken “Gallus domesticus is believed to have originated from four wild species namely:-

1. The Gallas gallus or Red jungle fowl
2. The Gallus lateycltic or Red Ceylon jungle fowl.

3. The Gallus Sonnati or the Grey jungle fowl
4. The Gallus Various or the jungle fowl

The modern domestic fowl is found everywhere now and has been developed into different breeds and varieties in different countries of the world.

The breed names are based on the locality where the breeds were first raised. The plumage colour and other features of the fowl such as the body shape eggshell colour, ear lobe colour, and types of comb egg and meat production.

The classification is based on the use of pure breeds for eggs or meat production as following: meat production Heavy Breeds/class:- These are also known as table breeds. They are reared for meat production, much broodiness, fast growing, heavy weight and maturity example the Sussex, Jersey black.

Egg production or light breeds class:- these breeds of birds have the following characteristics:

Early maturity 5-6 months active and light on weight, high egg production (180-270 eggs yearly on average of 16 eggs a month) poor broodiness or poor brooding quality produce white shell eggs example leghorn.

Dual-purpose breeds (egg and meat producers). These breeds are good for both eggs and meat producers. They mature between 6 and 7 months. Their characteristics include brown shelled eggs, greater broodiness than the light breeds example Plymouth Rock, Furlong or game birds. These are large birds with beautiful plumage developed and reared for recreation, sporting games for exhibition and show eg Bantams.

Importance of Poultry

Their benefits which can be obtained from poultry keeping include:

Eggs: Providing a very rich source of protein when consumed fresh. They also have a high commercial value.

Meat: Of high quality protein and meat of young birds is very tender.

Manure: The dropping from the birds produces very rich manure, which can be used in maintaining soil fertility. It is normally mixed with sawdust in poultry houses and be allowed to decay through, before being used otherwise severe crop damage may result.

Feathers: The down feathers are used for making pillows and mattresses. The flight feathers of some birds are used for decorations.

Statement of the Problems:

Despite the fact that poultry production (fowls) becomes the talk of the day in almost every family in Nigeria and it is the most common animal we see around us, many people reared it under extensive system. Some reared their poultry under intensive system. And it is estimated that in terms of food conversion poultry egg rank with cow milk is being the most economically produced animal protein and that poultry flesh ranks above that of other domestic animals. In spite of this there is still inadequate supply of poultry meat in the country not minding that it is the most common.

Purpose of the Study:

The aim of this study is to found out the problems of poultry production under intensive system of management. The specific objectives are:

- a) To unfold the economic production of intensive system of management.
- b) To identify the management problems that is involved in intensive system of poultry under intensive system of management.
- c) Identify the personal problems of poultry under intensive system of management.
- d) Examine the environmental problems of poultry production under intensive system of management.

Significants of the Study:

The findings of this study will provide the necessary solution to the problem that have apparently constrained increase productivity of chicken raised under intensive system of husbandry in Ebonyi Local Government Area of Ebonyi State, by the farmers. Information such as personal problems, financial problems that are required for optimum production of chickens will also be provided. It is hoped that besides the provision of solutions to the identified constraints, the adoption of the recommendations of poultry farmers keeping chicken in any of the intensive systems will usher in efficiency in the birds as well as induced investment in commercial production of intensively managed chickens poultry farmers will benefit from this because it will help in production of birds in large quality, other apart from that farm that is the consumers will also benefit because the rate of consumption would be increased.

Scope of the Study

The study will be limited to only farmers under intensive system of management of poultry in Ebonyi Local Government Area of Ebonyi State.

Research Questions

To carry out this effectively the following research questions should be asked:

1. What are the economic problems of poultry under intensive system?
2. What are the management problems of poultry under intensive system?
3. What are the environmental problems of poultry production under intensive system of management?
4. What are the personal problems of poultry production under intensive system of management?

Research Methodology and Design

This chapter is organized under the following subheading.

Research design

Population of the study

Sample and sampling techniques

Instruments for data collection

Validation

Procedure for data collection

Method of data analysis

Research Design

This research is aimed at finding out the problems of poultry production under intensive system of management in Ebonyi Local Government.

Population of the Study:

The population for this study is made up of nine commercial poultry farms, raising chickens under intensive system of management in Ebonyi Local Government Area of Ebonyi State.

Sample and Sampling Techniques

The sample that is to be used for this research topic and coverage of the population is simple random sampling. The reason for using it is that all members of the population have equal density of being selected as a single. There are (nine) commercial, poultry farm raising chickens under intensive system of management in Ebonyi Local Government Area. However, (five) poultry farms will be selected, (ten) workers in each of the poultry farms were selected for this study given a total of 50.

Instrument for Data Collection

The instrument to be used for data collection is questionnaire. The questionnaire instrument is in two sections:

Section one (1) is respondent personal data and

Section two (2) is divided into four sections, the questionnaire therefore comprises of twenty (20) questions. A sample of the questionnaire items will be submitted to our supervisor for validation before they were approved and used for the studies.

Validation of Instrument

To ensure the validity of the instrument, a sample of the questionnaire items will be constructed by the researchers. This will be given to expert for necessary corrections. His correction and advice will be used in revising of questionnaires.

Reliability of Instruments

The questionnaires will be subjected to reliability. Copies of the questionnaires will be administered to the poultry farms selected in Ebonyi Local Government Areas.

Method of Data Analysis

The data collection will be arranged in frequency and analysis by use of mean. The mean was calculated using the formula below:

Where

- X = mean of the sample
- E = Summation sign
- F = Frequency of responses in each category
- N = total number of responses of scale

Therefore

$$X = \frac{\sum FX}{N} = \frac{5+4+3+2+1}{5} = \frac{15}{5} = 3.0$$

Determination of cutoff point

An interval scale of 0.5 will be added to the mean of the nominal value. Thus 3.5 and above is regarded as positive and will be accepted. While any response less than 3.5 is regarded as negative and consequently will be rejected.

Data Presentation and Analysis

This chapter deals with the presentation analysis of the data collected for the research work.

RESEARCH QUESTION 1: THE ECONOMIC PROBLEM OF POULTRY PRODUCTION UNDER INTENSIVE SYSTEM.

TABLE 1:

S/NO	ITEMS	SA	A	UD	D	SD	N	X	REMARK
1	Cannibalism occur in chicken when they are not well fed thus leading to loss poultry production	14	19	8	4	5	50	3.6	Agree
2	High range of land for poultry production leads to increase operational lost	12	22	11	3	2	50	3.7	Agree
3	Fund is a problem to the poultry production	20	15	5	6	4	50	3.8	Agree
4	Cost of feeding and purchasing of drug use in poultry house affect the production of birds	15	17	4	5	9	50	3.5	Agree
5	Workers and loss of birds through pest and disease is a problem to poultry production	14	5	11	4	16	50	2.9	Disagree

Table 1: Represents the frequency of responsebirdss and mean score per item on economic problem of poultry production under intensive system management.

Base on the table, the respondents in items 1, 2, 3 and 4 with cut-off mark of 3.6, 3.7, 3.8 and 3.5 respectively agreed that cannibalism occur in chicken when they are not well fed and high rentage of land for poultry production leads to increase operational cost. Also, fund is a problem to poultry production and cost of feeding and purchasing of drugs used in poultry house affect production of birds. In item 5 with cut-off mark of 2.9 respectively indicate that cost of

paying for workers and loss of birds through pests and diseases are problems to poultry production.

TABLE II: THE MANAGEMENT PROBLEM OF POULTRY UNDER INTENSIVE SYSTEM.

S/NO	ITEMS	SA	A	UD	D	SD	N	X	REMARK
1	Cage layer fatigue occur in chicken when there is poor management practice	12	10	14	7	7	50	3.3	Disagree
2	Egg production drop is as a result of inadequate water	22	20	2	4	2	50	4.1	Agree
3	Cleanliness in the poultry is important in the control of poultry diseases	23	13	7	3	4	50	3.9	Agree
4	The kind of food given to the poultry will affect the production of the poultry	17	14	8	7	4	50	3.7	Agree
5	How the birds are broad are problems to the poultry production under intensive system	7	12	14	10	7	50	3.4	Disagree

Table ii: Represents the frequency responses and the mean scores per item on the management problems of poultry under the intensive system.

In items 2, 3 and 4 with cut-off marks of 4.1, 3.9, and 3.7 respectively that high humidity is an important cause of death poultry during the rainy season and cleanliness in the poultry is also important.

In item 1 and 5 with the mean scores of cut-off marks of 3.3 and 3.04 respectively that cage layer fatigue occurs in chickens when there is poor management practices and how the Birds are managed is a problem to poultry production.

TABLE III: SOME OF THE PERSONAL PROBLEMS UNDER THE INTENSIVE SYSTEM OF POULTRY.

S/NO	ITEMS	SA	A	UD	D	SD	N	X	REMARK
1	Inadequate equipment is one of the problem under intensive system	25	11	3	5	6	50	3.9	Agree
2	Lack of knowledge under the production of poultry under intensive system	12	30	5	2	1	50	4.0	Agree
3	Lack of interest in poultry farming is one of the problems that hinders the production of birds	14	20	9	3	4	50	3.7	Agree
4	Inability to carry out the operation very well is one of the problems	9	5	10	5	21	50	2.5	Agree
5	Lack of workers affect the production of poultry under	17	5	5	8	15	50	3.2	Disagree

Table iii: Represent the frequency of responses and the mean scores per item on the personal problem under intensive system of poultry.

Based on the table, item with the mean score of 2.5 and 3.02 fall below the cut-off marks and indicates the answer does not suggest the inability to carry out the operation very well and lack of workers affect the production of poultry.

Item 1, 2 and 3 with the mean scores of 3.9, 4.0, and 3.7 respectively shows that the answer inadequate fund is one of the problems and lack of knowledge hinder the production of poultry under intensive system.

TABLE IV: THE ENVIRONMENTAL PROBLEM THAT AFFECTS THE PRODUCTION OF POULTRY UNDER INTENSIVE SYSTEM

S/NO	ITEMS	SA	A	UD	D	SD	N	X	REMARK
1	High temperature causes high rate of mortality	19	17	4	5	5	50	3.8	Agree
2	Inadequate spacing of birds also affect the performance of birds	12	22	5	7	4	50	3.6	Agree
3	High humidity is an important cause of death of poultry during the raining seaseon	8	7	10	10	15	50	2.7	Disagree
4	High rate of relative humidity causes of disease to bird	12	16	11	9	2	50	3.5	Agree
5	Environment affect the growth of the birds under intensive system of management	17	14	7	4	8	50	3.6	Agree

Poor ventilation affects birds' performance and breaks the pest and disease.

Table IV: Represent the frequency responses and the mean scores per item on the environmental problem that affects the production of poultry under intensive system.

In items 1, 2, 3, 4, and 5 with cut-off marks of 3.8, 4.1, 3.5 and 3.6 respectively their high temperature causes high rate of mortality and also environmental affects the growth of the birds under intensive system

Major Findings:

1. Fund is a problem to the poultry production.
2. High rantage of land poultry production leads to increase operational loss.
3. Cannibalism occurs in chicken when they are not well fed thus leading to loss of birds.
4. High humidity is an important cause of death of poultry during the rainy season.
5. The kind of food given to the poultry will affect the production of the poultry.

6. Lack of knowledge hinders the production of poultry under intensive system.
7. Lack of interest in poultry farming is one of the problems that hinder the production of birds under intensive system
8. High temperature causes high rate mortality.
9. Environment affect the growth of the birds under intensive system of management.
10. High rate of relative humidity causes disease to birds.

Discussion, Conclusion, Recommendations and Summary

Discussion

Research question 1 seeks to find out the economic problem of poultry under intensive system in Ikwo Local Government Area.

Table 1, represents the frequency of responses and the mean score per item on economic problem of poultry production under intensive system.

In table 1, item one shows that cannibalism occurs in chicken under intensive system when they are not well fed. This leads to loss of poultry products. This is supported by Oboh (1976) who stated that in deep litter system of husbandry cannibalism is rampant, spread of disease fast, unproductive birds are weathier easily a potted not production readily identifies and sucking of eggs

Item two shows that high rantage of land for poultry production leads to increase operational loss. This is supported by Ajibola (1986) who state that high rantage of land increases operational cost.

Item three shows that fund is a problem to poultry production. In this Obioha (1992) says that low capital availability resulted to small scale production.

Item four shows that cost of feeding and purchasing of drugs used in poultry houses affects production of birds.

Item five shows disagree that, cost paying the workers and loss of birds through pests and diseases are not problem for poultry. Item 1, 2, 3 and 4 (agree) because they are hot lying like 3.5.2006

Research question two seeks to find out the management problem of poultry under intensive system.

In items 2, 3 and 4 with mean scores of 4.1, 3.9, 3.7 agree that high humidity is an important cause of death of poultry during rainy season and the kind of food given to poultry will affect the production of poultry. This is supported by Smith (1990) say that high humidity in the chickens house is important cause of death in poultry during rainy season.

Items 1 and 4 disagree that cage layer fatigue occurs in chickens when there is poor management practice and how the

Research question three seeks to find out some personal problems under intensive system of management.

In item 1, 2, and with mean scores of 3.9, 4.0, 3.7 agree that inadequate equipment is one of the problems under intensive system. Lack of knowledge hinders the production of poultry farming as one of the problems that hinder the production of birds.

This is supported by Ngoka (1992) who says that people were becoming aware of the need to have skilled manpower to run poultry production operation and item 4 and 5 with mean scores 2.5 and 3.02 disagree that inability to carry out the operation very well is one of the problems and lack of workers affect the production of poultry under intensive system.

Research question four seeks to find out the environmental problem of poultry production under intensive system.

In item 1, 2, 3, 4, 5 with mean scores of 3.8, 3.6 and 3.5 agree that high temperature causes high rate of mortality, inadequate spacing of birds-deep drop. This is supported by Oboh (199976) recorded that chickens when are one-day old to one week of age are very sensitive to cold and may easily die during this period unless adequate measures are taken.

In item 3 and 5 with mean score of 2.7 disagree that egg production drop is as a result of inadequate supply of water.

Conclusion

In a country like Nigeria, where agriculture is the major occupation, people are supposed to have the knowledge of agricultural science.

However, the study conducted revealed that there are many problems affecting the production of poultry under the intensive system. If these problems continuous, this will likely lead to low supply of poultry (chicken) and their products like egg and meat.

There is need to improve the production of poultry in other to increase the income of our country.

Recommendation

Based on the principal findings, the following recommendations are made as solutions identified. An organized health programmer, involving the employment of veterinary doctor should be incorporate in the poultry farm. Chicken should be given preventive health management at hatchery and rules regarding vaccination and general health management should be observed. They should be adoption of sourcing of local ingredients at alternative sources, which are relatively available and cheaper than the conventional feed ingredients. Credit facilities through Governmental Development and co-operative banks, such credit should be on long-term basis at low interest rate and to aid the poultry farmers to increase their level of production, as well as induced new establishment of new poultry farmers raising chickens intensively. The orientation of the poultry building should be North and South and enough roofs. Coverage should be made to minimize effect on rain drops into poultry pans.

More so, adequate ventilation should be provided to reduce the level of humidity resulting from high rain fall.

Summary

In summarizing this work, I learnt that domestic (Fowl) is one of the common species of poultry, chicken, ducks, and turkeys, which are raised in Nigeria and other parts of the world. Egg, meat, feathers are the benefits which can be obtained from poultry keeping. Chickens are originated from wild species of the Red Jungle fowl (*Gallus gallus*) found in India, Burns and their land. Chickens are sources of all nutritional requirement in their feed which should contain protein, carbohydrate, fats, minerals, vitamins and water in their right proportion when in confinements.

So there is need to increase the production of poultry in order to increase the income of our country. People are supposed to have the knowledge of Agricultural science in Nigeria since agriculture is then a major occupation in order to improve the production of poultry and control disease of poultry chicken because the disease will lead to low supply of poultry chicken and their products like egg and meat.

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