

INCIDENCE OF COMMON POULTRY DISEASES IN SELECTED POULTRY FARMS IN OWERRI, IMO -STATE, NIGERIA FROM 2013 – 2017

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ABSTRACT

A survey on the incidence of common poultry diseases was carried out in five selected poultry farms in Owerri North and Owerri West Local Government Areas of Imo State for the period of January 2013 to December 2017. The diseases investigated include: Newcastle disease, Infectious Bursal disease, Coccidiosis, Fowl typhoid and Chronic Respiratory disease. The farms were Lambert Farm and Engrobic farms in Owerri West Local Government Area; Odimara farms, Ben and Baba Khojo farms and Chiawuotu farms in Owerri North. Data were collected in the selected farms on percentage mortality rates of each disease. The prevalence of Coccidiosis was slightly higher than other diseases investigated. Newcastle Disease recorded 1.22% of total percentage mortality, Infectious Bursal Disease recorded 0.6%, Coccidiosis recorded 1.24%, Fowl typhoid recorded 0.58% and Chronic Respiratory Disease recorded 0.38%. Most of the diseases occurred during the rainy season [April to October] of the years. Most of the poultry farmers were male and within the age range of 32-50 years. Poor management, inadequate diagnostic facilities, improper vaccine handling, self medication coupled with harsh weather conditions were responsible for the distribution pattern. It therefore becomes imperative for poultry farmers to institute and intensify biosecurity measures in order to minimize emergence and transmission of these diseases.

Keywords; Poultry diseases, percentage mortality, prevalence, biosecurity measures.

INTRODUCTION

Poultry industry in Nigeria occupies a prominent position as a major source of animal protein and economic empowerment of the resource poor segments of the society. [Udedibie and Opara 1998]. USDA [2013] currently rated Nigeria as the leading country in Africa with respect to egg production, but the fourth in broiler chicken production. According to F.A.O. [2010], Nigeria presently is far from meeting her domestic demand when compared with that of the developed countries. Nigeria 'per capita daily protein consumption/intake' for instance is estimated to be 45.4g as against F.A.O recommended minimum of 53.8g.

Poultry disease has however, been identified as one of the major barriers to expansion of poultry industry in Nigeria [Okere *et al.*, 2014; Okoli *et al.*, 2001, 2003; Okoli and Ebere, 2002]. The cost of disease treatment and control tends to increase the cost of production of poultry, hence reducing the profit earned by the poultry farmers. This thereby leads to a hike in purchase of poultry and their products, out of the reach of the common man [Okere *et al.*, 2018]. These poultry diseases are barriers to sustainable poultry production all over the world.

This study will therefore, identify the incidences of the aforementioned diseases, analyse the level of losses reached by these diseases and make appropriate recommendations on how to ameliorate the problem.

MATERIALS AND METHODS

Five selected poultry farms were investigated; Lambert Farms and Engrobic Farms in Owerri West Local Government Area; Odimara Farms, Ben and Baba Khojo Farms and Chiawuotu Farms in Owerri North. Information on the locations of existing poultry farms were obtained from Owerri north and Owerri west local government secretariats. The five poultry diseases investigated were Newcastle disease, Infectious Bursal disease, Coccidiosis, Fowl typhoid and Chronic Respiratory disease. The farms were selected based on existence of farm records, production consistency and efficiency and large population. Mortality rate percentages were determined.

METHOD OF DATA COLLECTION AND ANALYSES

Magazines, journals and internet were the secondary sources of data while the primary sources of data were the farm disease survey records [health records], detailed questionnaires and interviews. Simple descriptive statistical model was employed in the analysis of work using tables, bar charts and graphs.

RESULTS AND DISCUSSION

Table 1 shows the average yearly incidence of the various poultry diseases in all the farms in the two local government areas of Imo State for the period of five years; January 2013 – December 2019.. Figure 1 shows the average percentage mortality of selected poultry diseases from farms in Owerri north and Owerri west local government areas of Imo State for the period January 2013 –December 2017. Newcastle disease recorded the highest percentage mortality of 0.21%.in Lambart farms for the five years. Fowl typhoid recorded the highest percentage mortality of 1.91% in Ben and Baba Khojo farms. Newcastle disease also had the highest percentage mortality of 0.77% in Odumara farms for the five years. In Chiawuotu farms, Coccidiosis recorded the highest percentage mortality rate of 2.58%. Newcastle disease recorded the highest percentage mortality of 2.12% for the five years in Engrobic farms. The average yearly incidence of the various diseases in all the five farms from January 2013 to December 2017 showed that Coccidiosis was the most prevalent in the farms with an average percentage mortality rate of 1.24% while chronic respiratory disease recoded the lowest average percentage mortality of 0.38%. This result agrees with Okere [1999], who reported the incidence of Coccidiosis as the highest [3.4% mortality] amongs five poultry diseases investigated in Imo State. Generally, incidences of these diseases were low in the five farms for the five years investigated, but the effects were devastating. The result of the study showed that Coccidiosis, Newcastle disease and Gumboro disease were the most prevalent in the study area. This is in agreement with Adene [2000] and FAO [2008] who suggested that throughout the world, Newcastle disease, Gumboro [IBD] and Coccidiosis are considered as the most important. It was also observed from the results of the questionnaire that disease outbreaks were mostly during the rainy season [May – October] in accordance with the report of Unamba -Opara [2018]

Table 1: Average yearly incidence of the various poultry diseases in all the farms in Owerri north and Owerri west local government areas of Imo State from January 2013 – December 2017

		2013	2014	2015	2016	2016	TOTAL
Newcastle Disease	Number of birds stocked	6000	6450	6350	7050	6400	32250
	Number of dead birds	105	83	72	66	66	392
	% Mortality	1.75	1.3	1,13	1.03	1.03	1.22
Infectious Bursal Disease	Number of birds stocked	6000	6450	6350	7050	6400	32250
	Number of dead birds	39	36	48	35	37	195
	% Mortality	0.65	0.56	0.76	0.5	0.57	0.6
Coccidiosis	Number of birds stocked	6000	6450	6350	7050	6400	32250
	Number of dead birds	90	78	75	78	79	400
	% Mortality	1.5	1.21	1.18	1.11	1.2	1.24
Chronic Respiratory Disease	Number of birds stocked	6000	6450	6350	7050	6400	32250
	Number of dead birds	24	20	27	25	26	122
	% Mortality	0.24	0.31	0.43	0.35	0.41	0.38
Fowl Typhoid	Number of birds stocked	6000	6450	6350	7050	6400	32250
	Number of dead birds	52	35	21	42	36	186
	% Mortality	0.87	0.56	0.33	0.6	0.56	0.58

CONCLUSION AND RECOMMENDATION

In conclusion, Newcastle disease, Infectious bursal disease, Coccidiosis, Chronic Respiratory disease and Fowl Typhoid have been majorly responsible for a number of economic losses to poultry farmers in Owerri north and Owerri west local government areas of Imo State with Coccidiosis recording the highest percentage mortality. It was therefore recommended that strict vaccination and medication schedule be adhered by the farmers, coupled with adequate keeping of health records.

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