



INCIDENCE OF COMMON POULTRY DISEASES IN SELECTED POULTRY FARMS IN OWERRI NORTH AND OWERRI WEST FROM 2013 – 2017

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ABSTRACT

Poultry diseases remain one of the major threats to poultry production in Nigeria. A survey on common poultry diseases was carried out in Owerri North and West Local Government Areas of Imo State. The incidences of the following diseases; Newcastle disease, Infectious bursal disease, Coccidiosis, Fowl typhoid and Chronic Respiratory disease were investigated in five selected poultry farms in the two Local Government Areas. The farms were Lambert Farms and Engrobic Farms in Owerri West, Odimara Farms, Ben and Baba Khojo Farms and Chiawuotu Farms in Owerri North for the period of January 2013 - December 2017. Data were collected on percentage mortality rates of each disease. The prevalence of Coccidiosis was slightly higher than other diseases investigated. Newcastle disease recorded 30.35% of the total percentage mortality, Infectious bursal disease recorded 14.93%, Coccidiosis recorded 30.85%, Fowl typhoid recorded 9.45% and Chronic Respiratory disease recorded 14.43%. It was observed that most of the poultry diseases occurred mostly in these areas during the rainy season of the year. Most of the poultry farmers in these areas were male and within the age range of 32 – 50 years. Poor management, improper vaccine handling and self-medication practiced by the poultry farmers coupled with harsh weather conditions and inadequate diagnostic facilities may be responsible for the distribution pattern recorded. It is therefore imperative for poultry farmers to institute and intensify appropriate biosecurity measures on how to minimize the emergence and transmission of these diseases.

Keywords: Poultry, Disease, Mortality, Nigeria.

Introduction

The poultry industry has in recent years occupied a leading role among agricultural industries in many parts of the world. These products have increased much faster than the beef, veal or pig meat (Daghir, 2008; Okere *et al.*, 2014). Poultry diseases remain one of the major threats to poultry production in Nigeria. The cost of disease treatment and control tends to increase production cost and hence reduced profit earned by poultry farmers (Okere *et al.*, 2018). Many poultry diseases such as the Newcastle, Gumboro disease, Coccidiosis, Fowl Typhoid and Chronic Respiratory diseases have been a barrier towards sustainable poultry production all over the world as it is in Nigeria.

This study will concentrate on the enormous losses in poultry industry in Owerri North and Owerri West Local Government Areas in Imo State caused by the above-mentioned poultry diseases.

Materials and Methods

The study was carried out in Owerri West (5.4166° N, 6.9853° E) and Owerri North (5.4567° N, 7.1144° E), Imo State in Southeast geopolitical zone of Nigeria. This study covered the selected poultry Farms: Lambert farms, Engrobic farms, Ben and Baba Khojo, Chiawuotu Farms and Odimara Farms. Consistency of production for the surveyed period, large population and health records were three main bases for the selection of these poultry farms in the study areas. Diseases surveyed for includes: Newcastle disease, Infectious bursal disease, Coccidiosis, Fowl Typhoid and Chronic respiratory disease. The data collected were reported descriptively using tables.

Results and Discussion

In this study, results showed that coccidiosis, newscastle disease and Gumboro (IBD) were the most prevalent. This is in agreement with reports of Adene (2000) and FAO (2008), suggesting that throughout



the world, of all poultry diseases, Newcastle disease, Coccidiosis and IBD are considered as the most important.

Records in (figure V) showed that Newcastle disease recorded 30.35% of the total % mortality of diseases surveyed. Infectious Bursal Disease recorded 14.93%, Coccidiosis recorded 30.85%, Fowl typhoid recorded 9.45% and Chronic Respiratory Disease recorded 14.43%. Table (I - V) shows the incidences of diseases in different farms over five years. Table (VI) shows the average yearly incidence of these common poultry diseases across the selected farms.

Conclusion and Recommendation

Among the areas and farms covered, Coccidiosis recorded the highest percentage mortality and fowl typhoid recorded the least percentage mortality. The prevalence of Coccidiosis in these two Local Government Areas could be based on the level of managerial experiences of the poultry farmers in these areas. Farms should be able to keep reliable records for mortality and morbidity cases, as this rare in Owerri North and Owerri West Local Government Areas.

REFERENCES

- Adene, D.F. (2000). Poultry Animal Health-Pilot Scale Study and Report: FAO-FGN/TCP/NIR 7822. FAO.
- Dahir, N.J. (2008). Nutritional Strategies to Reduce Heat stress in Broilers and Broiler Breeders Vol.44 (1), April 2009, page 10.
- Okere, P.C., Egenuka, F.C., Kadurumba, O.E., Etuk, E.B., Okoli, I.C. and Udedibie, A.B.I. (2018). Hematological and Biochemical Characteristics of Finisher Broilers Fed Graded Levels of *Moringa oleifera* Leaf Meal. 43rd Annual Conference of The Nigerian Society For Animal Production, March 18th – 22nd 2018. FUT. Owerri.
- Okere, P.C., Etuk, E.B., Obikaonu, H.O., Okoro, V.M.O. and Udedibie, A.B.I. (2014). Evaluation of Sun-dried Cassava Fufu Meal as a source of dietary Energy For Finisher Broilers. *Intl Journal of agric. and rural dev. Volume 17*(1): 1635 – 1640.

Table I: Incidence of poultry diseases in Lambert farms, Umuguma, Owerri West Local Government Area, Imo State for the period January 2013 – December 2017.

DISEASES		2013	2014	2015	2016	2017	TOTAL
NEWCASTLE DISEASE	Number of birds stocked.	1100	1250	1200	1300	1500	6350
	Number of dead birds.	22	18	15	19	23	77
	% Mortality	2	1.44	1.25	1.46	1.56	1.21
INFECTIOUS BURSAL DISEASE	Number of birds stocked.	1100	1250	1200	1300	1500	6350
	Number of dead birds.	8	11	12	16	13	60
	% Mortality	0.73	0.88	1	1.23	1.87	0.94
COCCIDIOSIS	Number of birds stocked.	1100	1250	1200	1300	1500	6350
	Number of dead birds.	15	12	17	8	11	38
	% Mortality	1.36	0.96	1.42	0.68	0.73	0.6
CHRONIC RESPIRATORY DISEASE	Number of birds stocked.	1100	1250	1200	1300	1500	6350
	Number of dead birds.	5	1	0	4	6	16
	% Mortality	0.45	0.08	0	0.31	0.4	0.25
FOWL TYPHOID	Number of birds stocked.	1100	1250	1200	1300	1500	6350
	Number of dead birds.	3	8	2	3	0	15
	% Mortality	0.28	0.68	0.17	0.23	0	0.25

Table II: Incidence of poultry diseases in Ben Baba Khojo, Obah Emii, Owerri North Local Government Area, Imo State for the period January 2013 – December 2017.

DISEASES	2013	2014	2015	2016	2017	TOTAL
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NEWCASTLE DISEASES	Number of birds stocked.	1200	1050	1000	1500	1000	5750
	Number of dead birds.	38	15	10	5	10	78
	% Mortality	3.17	1.43	1	0.33	1	1.35
INFECTIOUS BURSAL DISEASE	Number of birds stocked.	1200	1050	1000	1500	1000	5750
	Number of dead birds.	12	10	12	7	12	53
	% Mortality	1	1	1.2	0.42	1.2	0.92
COCCIDIOSIS	Number of birds stocked.	1200	1050	1000	1500	1000	5750
	Number of dead birds.	42	30	7	11	18	108
	% Mortality	3.5	2.86	0.7	0.73	1.8	1.88
CHRONIC RESPIRATORY DISEASE	Number of birds stocked.	1200	1050	1000	1500	1000	5750
	Number of dead birds.	12	11	17	13	15	68
	% Mortality	1	1.05	1.7	0.87	105	1.18
FOWL TYPHOID	Number of birds stocked.	1200	1050	1000	1500	1000	5750
	Number of dead birds.	28	21	15	16	30	110
	% Mortality	2.33	2	1.5	1.07	3.0	1.91

Table III: Incidence of poultry diseases in Odimara Farm Limited Emii, Owerri North Local Government Area, Imo State for the period January 2013 – December 2017.

DISEASES		2013	2014	2015	2016	2017	TOTAL
NEWCASTLE DISEASES	Number of birds stocked.	2500	2500	2500	2500	2500	7500
	Number of dead birds.	10	13	8	15	12	58
	% Mortality	0.4	0.52	0.32	0.6	0.48	0.77
INFECTIOUS BURSAL DISEASE	Number of birds stocked.	2500	2500	2500	2500	2500	7500
	Number of dead birds.	3	6	8	4	6	27
	% Mortality	0.12	0.24	0.32	0.16	0.24	0.36
COCCIDIOSIS	Number of birds stocked.	2500	2500	2500	2500	2500	7500
	Number of dead birds.	7	10	9	13	15	54
	% Mortality	0.28	0.4	0.36	0.52	0.6	0.72
CHRONIC RESPIRATORY DISEASE	Number of birds stocked.	2500	2500	2500	2500	2500	7500
	Number of dead birds.	3	0	1	0	2	6
	% Mortality	0.12	0	0.04	0	0.08	0.08
FOWL TYPHOID	Number of birds stocked.	2500	2500	2500	2500	2500	7500
	Number of dead birds.	5	3	0	8	2	18
	% Mortality	0.2	0.12	0	0.32	0.08	0.24

Table IV: Incidence of Poultry Diseases in Chiawuotu Farms Umuosu Naze, Owerri North Local Government Area, Imo State for the period January 2013 – December 2017.

DISEASES		2013	2014	2015	2016	2017	TOTAL
NEWCASTLE DISEASES	Number of birds stocked.	600	800	850	750	600	3600
	Number of dead birds.	20	17	14	12	10	73
	% Mortality	3.33	2.13	1.65	1.6	1.67	2.03
INFECTIOUS BURSAL DISEASE	Number of birds stocked.	600	800	850	750	600	3600
	Number of dead birds.	8	5	4	8	6	31
	% Mortality	1.33	0.63	0.47	1.14	1	0.86
COCCIDIOSIS	Number of birds stocked.	600	800	850	750	600	3600
	Number of dead birds.	16	11	25	21	13	85
	% Mortality	2.67	1.38	2.94	2.8	2.16	2.38



CHRONIC RESPIRATORY DISEASE	Number of birds stocked.	600	800	850	750	600	3600
	Number of dead birds.	2	3	8	0	3	16
	% Mortality	0.33	0.38	0.94	0	0.5	0.44
FOWL TYPHOID	Number of birds stocked.	600	800	850	750	600	3600
	Number of dead birds.	5	0	0	10	8	23
	% Mortality	0.83	0	0	1.33	1.33	0.64

Table V: Incidence of Poultry Diseases in Engrobic Farm Limited Obogwu, Owerri West Local Government Area, Imo State for the Period January 2013 – December 2017.

DISEASES		2013	2014	2015	2016	2017	TOTAL
NEWCASTLE DISEASES	Number of birds stocked.	600	850	800	1000	800	4050
	Number of dead birds.	15	20	2.5	15	11	86
	% Mortality	2.5	2.35	3.13	1.5	1.38	2.12
INFECTIOUS BURSAL DISEASE	Number of birds stocked.	600	850	800	1000	800	4050
	Number of dead birds.	8	4	12	0	0	24
	% Mortality	1.33	0.47	1.5	0	0	0.6
COCCIDIOSIS	Number of birds stocked.	600	850	800	1000	800	4050
	Number of dead birds.	10	15	17	25	22	89
	% Mortality	1.67	1.76	2.13	2.5	2.75	0.6
CHRONIC RESPIRATORY DISEASE	Number of birds stocked.	600	850	800	1000	800	4050
	Number of dead birds.	2	5	1	8	2	18
	% Mortality	0.33	0.59	0.125	0.8	0.25	0.44
FOWL TYPHOID	Number of birds stocked.	600	850	800	1000	800	4050
	Number of dead birds.	11	3	4	8	6	32
	% Mortality	1.83	0.35	0.5	0.8	0.75	0.79

Table VI: 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.

DISEASES		2013	2014	2015	2016	2017	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