Short Communication

A SURVEY OF MAJOR CONSTRAINTS LIMITING COMMERCIAL POULTRY PRODUCTION IN AND AROUND GOMBE METROPOLIS

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SUMMARY

In a survey of major constraints limiting commercial poultry production in Gombe metropolis, 2,121 poultry cases were presented at the Gombe State Veterinary Clinic between January 1995 and December 2004. Out of the total number of cases presented, Newcastle disease (ND) accounted for 14.66%, chronic respiratory disease (CRD) 12.31%, fowl typhoid (FT) 12.02%, coccidiosis 10.81%, fowl pox (FP) 10.33%, fowl cholera (FC) 8.63%, nutritional disorders 8.49%, ectoparasitism 7.49% while helminthosis accounted for 7.07%. Based on the analysis of 110 questionnaires administered to poultry fa rmers, ND was found to be the most prevalent accounting for 19.1% of the total, FP accounted for 15.7% and helminthosis accounted for 2.2%. The results suggest that infectious, non infectious and parasitic diseases constituted the major constraints to suc cessful commercial poultry production in Gombe State.

KEY WORDS : Poultry production, constraints, Gombe State, Nigeria.

INTRODUCTION

Since Gombe became a State more than ten years ago, there has been a tremendous increase in its human population and activities. The State is blessed with vast land and the weather condition is favourable for livestock and poultry production (Gombe State Agricultural Development Project, 2003). The poultry industry is an emerging agri-business and has established its position as one of the fastest growing segment in the agricultural sector (Shrestha *et al.*, 2003). The growth of this profitable sub sector is constrained by a number of factors such as disease conditions and management problems (Ambali and Ibrahim, 1996; Amin *et al.*, 1999; Anga and Eson, 2003). These factors have been recognized as the greatest affecting livestock and poultry production in Nigeria (Akerejola *et al.*, 1979; Ambali and Ibrahim, 1996; Amin *et al.*, 1999). However, there is a dearth of information on the prevalence of poultry diseases and management problems in Gombe State. It is against this backdrop that the authors consider it necessary to retrospectively assess poultry diseases and management problems in Gombe State.

MATERIALS AND METHODS

Records of poultry cases, case files of individual poultry farms and post-mortem records of poultry diseases diagnosed between January 1995 and December 2004 were obtained from Gombe State Veterinary Clinic. Also, a close-ended questionnaire containing 16 items were prepared and distributed to 110 individual commercial poultry farmers within and around Gombe metropolis to assess poultry health and production problems. Some of the questions highlighted include type of birds kept, management system, type of housing and major constraints among others. Data were compiled and analysed using proportional (percentage) data presentation.

RESULTS AND DISCUSSION

The annual distribution of poultry diseases presented at the Gombe State Veterinary Clinic from January 1995 to December 2004 is presented in Table I. Of the 2121 cases presented, ND accounted for 14.66% while FT, FP, IBD, CRD and FC had 12.02%, 10.33%, 8.82%, 12.31% and 8.63% respectively. Other diseases diagnosed during the study period include coccidiosis, helminthosis, ectoparasitism and nutritional deficiencies with 10.18%, 7.07%, 7.49% and 8.49% of the total number of cases respectively.

A total of 110 commercial poultry farmers with an average stocking of 100 birds were contacted with questionnaires. Common diseases encountered by poultry farmers are presented in Table II. ND was the most prevalent disease accounting for 19.1% of the total, followed by FP with 15.7% and helminthosis with 2.2%. Result of the questionnaire survey on management systems, types of feed used and vaccination status showed that 81 (78.64%) of the respondents keep birds under the intensive system of management as opposed to semi-intensive and free-range in which 16 (15.53%) and 6 (5.82%) of the respondents respectively practice those systems. The use of commercial feeds is by far the highest with 83 (81.3%) of the respondents indicated usage of commercially available feeds as compared to 9 (8.8%) and 10 (9.8%) of the respondents indicated the use of locally prepared feed and mixture of both locally prepared and commercially available feeds respectively. Only 40 (38.83%) of the respondents completed the vaccinations required for their birds as opposed to 63 (61.2%) of them who did not.

The result of this study shows that infectious diseases are the major constraints to successful commercial scale poultry farming in Gombe State. One of such diseases is ND, which appears to have the most devastating effect on poultry production in the State. Although the study focused mainly on urban and peri-urban farmers, however, the result has shown that 61.2% of the farmers did not complete the vaccinations required by their birds. This could have contributed to the high prevalence of infectious diseases. These findings are in agreement with results of similar studies from other parts of the country (Amin *et al.*, 1999; Ibrahim and Tanya, 2001), where difficulties

associated with vaccination of chickens led to high prevalence of infectious diseases.

Other production constrains limiting the development of the commercial poultry sector in the state include increase in the costs of drugs, vaccines and commercial feeds. Feed formed at least 60% of the total cost of production of poultry products, however in countries like Nigeria there is high competition for cereal grains between humans and livestock (Fetuga, 1977; Igboeli, 2000). Poultry production requires high quality feed which should be maintained. It has been shown that

quality of poultry feed in the Nigerian markets are very poor (Carew *et al.*, 2005), this could also have contributed to the low productivity in the sub sector.

From this study, it can be concluded that with improved management and control of infectious diseases such as ND, there would be a tremendous growth of this profitable livestock sub sector in Gombe State.

TABLE I. Annual distribution of poultry diseases in Gombe State Veterinary Clinic (19952004)

Disease	Year										Total	Prevalence rate (%)
	19 95	19 96	19 97	19 98	19 99	20 00	20 01	20 02	20 03	20 04		
ND	23	28	22	28	31	35	30	33	37	44	311	14.66
FP	15	22	18	20	29	30	20	15	18	32	219	10.33
IBD	17	15	16	20	23	11	17	18	23	27	187	8.82
FT	15	17	19	24	23	27	23	30	28	49	255	12.02
CRD	16	20	20	24	31	34	27	33	31	25	261	12.31
FC	18	15	18	17	25	20	14	25	13	18	183	8.63
Coccidiosis	19	16	19	25	28	30	18	22	25	14	216	10.18
Helminthosis	15	14	18	17	15	13	18	13	12	15	150	7.07
Ectoparasitism	18	10	16	15	15	17	16	21	15	16	159	7.49
Nutritional deficiencies	16	15	12	15	19	23	21	17	20	22	180	8.49
TOTAL	**172**	**172**	**178**	**205**	**239**	**240**	**204**	**227**	**222**	**262**	**2121**	**100**

KEY: ND = Newcastle disease, FP = fowl pox, IBD = infectious bursal disease, FT = fowl typhoid, CRD = chronic respiratory disease, FC = fowl cholera

TABLE II. Diseases encountered by poultry farmers in Gombe metropolis and its surrounding areas.

Diseases	Number of respondents	Percentage (%)
ND	17	19.1
FP	14	15.7
IBD	12	13.5
FT	11	12.3
CRD	9	10.1
FC	6	6.7
Helminthosis	2	2.2
Ectoparasitism	5	5.6
Coccidiosis	13	14.6
TOTAL	**89**	**100**

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