

**COMPARATIVE STUDY OF SEASONAL INCIDENCE OF CHICKEN COCCIDIOSIS IN EIGHT DISTRICTS OF MARATHWADA REGION, MAHARASHTRA STATE, INDIA**

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**ABSTRACT**

During March 2011 to February 2012, total 2165 fecal samples of chicken were examined for coccidial infections from various eight districts of Marathwada region out of which 597 samples were positive, the percentage of prevalence being 27.57%.

**KEY WORDS:** Coccidiosis, intestine of broiler chicken, Oocysts.

**INTRODUCTION**

Domestic poultry has gained a much greater importance in animal production and constitutes a major factor in overall economy. Several species of coccidia cause extensive pathological damage and mortality in cattle, sheep, goat, pig and other animals. Coccidiosis is believed to be a commonest depreciator or even a potential killer of our poultry. For this reason coccidia have attracted the attention of many workers, (Bhatia and Pande, 1970; Balika - Ramiz, 1999; Chhabra and Pande, 1991; Davies *et.al*, 1963; Deb *et.al*, 1980; Gill and Ray, 1960; Jha, 1966; Nikam, 1982). According to medical, veterinary and Biological point of view their study is very important. Hence, this study was initiated to record the prevalence of coccidia in chicken at different eight districts i.e. Aurangabad, Jalna, Parbhani, Nanded, Hingoli, Osmanabad, Latur, and Beed in Marathwada region, (M.S.).

**MATERIALS AND METHODS**

The material for this study was obtained from eight districts mentioned above. The different parts of alimentary canal of slaughtered chicken were examined and preceded within 6-8 hours after collection. The samples were examined for the presence of oocysts after sieving and centrifugation at 3000 rpm. The oocysts collected were spread out in shallow petridish in 2.5% potassium dichromate solution for sporulation.

**RESULTS AND DISCUSSION**

During March 2011 to February 2012, 2165 fecal samples were examined for coccidial infection, from eight districts in Marathwada region, Maharashtra State, India. Out of which 597 samples were found positive. Overall, season wise analysis showed that the infection was higher in summer, followed by monsoon and winter. In summer 789 samples were examined, out of which 250 samples were found positive. Comparative study of prevalence of infection in chicken shows that maximum prevalence was in Nanded (46.66 %), followed by Osmanabad (40.0%), Latur (39.17%), Aurangabad (36.0%), Beed (30.76%), Jalna (22.82%), Hingoli (22.7%) and Parbhani (19.28%). In monsoon 699 samples were examined. Out of which 175 samples were found positive (25.03%). Comparative study of prevalence of infection in chicken shows that maximum prevalence was in Nanded (27.95%) followed by Parbhani (26.96%), Hingoli (26.14%), Aurangabad (25.88%), Latur (24.70%), Jalna (24.69%), Osmanabad (24.44%) and Beed (18.88%). In winter 677 samples were examined. 172 samples were positiv. (25.40%). Comparative study of prevalence of infection in chicken shows that maximum prevalence is in Aurangabad i.e. (38.37%), followed by Hingoli (35.22%), Latur (27.58%), Jalna (26.96%), Nanded (21.68%), Parbhani (19.4%), Osmanabad (16.25%) and Beed (15.11%).

**Table-1. Showing the prevalence of coccidiosis in chicken in eight Districts during summer (March, 2011 – Jun, 2011).**

Districts	No. of samples examined.	No. of +Ve Samples	% of Prevalence
Aurangabad	86	31	36.04
Jalna	92	21	22.82
Parbhani	140	27	19.28
Nanded	105	49	46.66
Hingoli	88	20	22.72
Osmanabad	90	36	40
Latur	97	38	39.17
Beed	91	28	30.76
Total	789	250	31.68

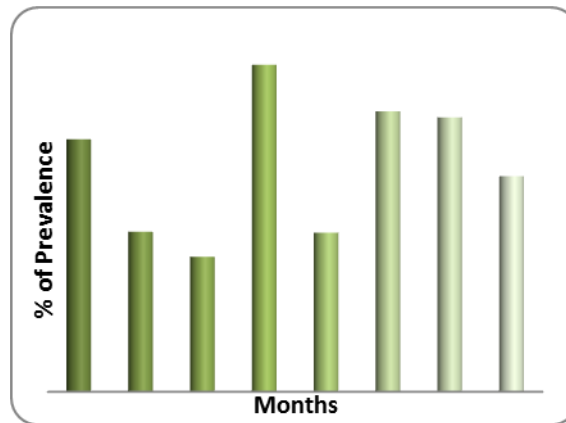


Figure 1. Showing the prevalence of coccidiosis in chicken in eight Districts during summer.

Table 2. Showing the prevalence of coccidiosis in chicken in eight Districts during monsoon (Jul, 2011 – Oct, 2011)

Districts	No. of samples examined	No. of +Ve samples	% of Prevalence
Aurangabad	85	22	25.88
Jalna	81	20	24.69
Parbhani	89	24	26.97
Nanded	93	26	27.96
Hingoli	86	23	26.74
Osmanabad	90	22	24.44
Latur	85	21	24.71
Beed	90	17	18.89
Total	699	175	25.04

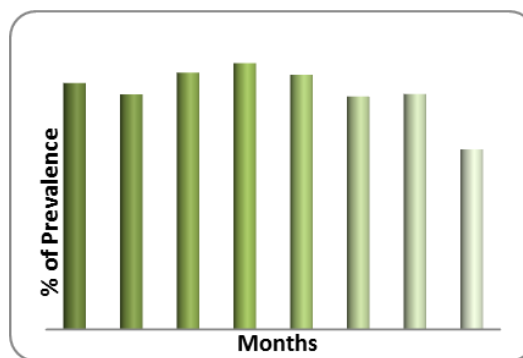
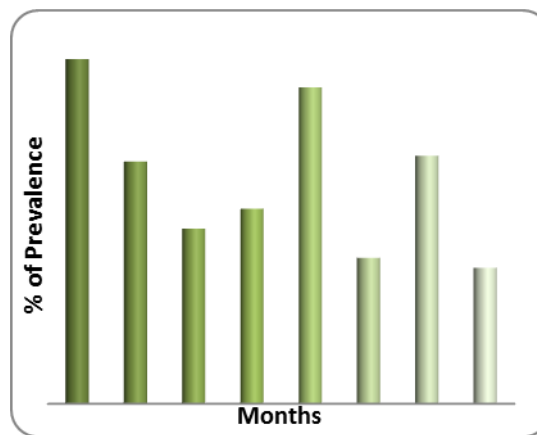


Figure 2. Showing the prevalence of coccidiosis in chicken in eight Districts during monsoon

Table 3. Showing the prevalence of coccidiosis in chicken in eight Districts during Winter (Nov, 2011 – Feb, 2012)

Districts	No. of samples examined	No. of +Ve samples	% of Prevalence
Aurangabad	86	33	38.37
Jalna	89	24	26.97
Parbhani	84	16	19.05
Nanded	83	18	21.69
Hingoli	88	31	35.23
Osmanabad	80	13	16.25
Latur	87	24	27.59
Beed	86	13	15.12
Total	683	172	25.18



**Figure 3. Showing the prevalence of coccidiosis in chicken in eight Districts during winter**

#### ACKNOWLEDGMENT

The authors are very much thankful to the U.G.C. for providing the financial assistance under Major Research Project F. No. 39-649/2010 (SR) and also thanks for Head, Department of Zoology, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (Maharashtra) for providing the laboratory facilities during this work.

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