

# Prevalence of Coccidia in Backyard Poultry Chicken (Desi) from Khultabad Tehsil of Chhatrapati Sambhajnagar (MH)

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**Abstract:** Chicken coccidiosis is most dangerous problem in every Organized and Unorganized poultry farms and due to the coccidiosis disease major economic loss of poultry Keepers. Eimerian species is belongs to phylum Apicomplexa causes great infectious to chicken of various ages. Various species viz. *E. acervulina*, *E. brunetti*, *E. maxima*, *E. mitis*, *E. necatrix*, *E. praecox* And *E. tenella* of *Eimeria* causes coccidiosis in chicken. The present inspection undertaken to know the status of coccidiosis from Jun-2023 to Sep-2023. 232 samples of dropping were collected of different indigenous chicken from different species reared in farm. Total 232 samples were collected for examination. From 23 villages of KHULTABAD Tahsil of Chhatrapati Sambhajnagar district. Out of 232 samples 164 are positive for coccidial infection, the percentage prevalence being 70.68% was done

**Keywords:** Backyard poultry, coccidian coccidiosis Eimeria etc

## I. INTRODUCTION

Poultry farming is a viable business activity and has got immense scope for growth in India. It is an important economic, social and cultural benefit and plays a significant role in family nutrition in the developing countries. Backyard poultry farming is one of the important components among the rural farmers of Maharashtra. Backyard poultry farming is increasing rapidly due to low establishment cost, cheap source of proteins and employment. The total poultry population of the country is 851.81 million (backyard poultry: 317.07 million; commercial poultry: 534.74 million). (20th Livestock Census Govt. 2019). Coccidiosis is caused by protozoan parasites of the apicomplexan genus *Eimeria* that occur in every avian life as well as every class of lives. Coccidia disease is a major cause of mortality, and decrease productivity in poultry farming. Nine *Eimeria* species have been described for chickens but only seven species (*E. acervulina*, *E. brunetti*, *E. maxima*, *E. tenella*, *E. necatrix*, *E. praecox*, And *E. mitis*) are commonly associated with disease in commercial production (Reid, W.M. and P.L. Long 1979). It is vital that backyard poultry keepers have a basic understanding of common poultry diseases because it gives small flock owners the ability and knowledge to recognize, treat and hopefully prevent future disease outbreaks. Coccidiosis is known to be the most prevalent and most expensive disease of poultry in the worldwide (Gari G, et al., 2008). It is one of the most alarming problems in poultry rearing industry and is responsible for morbidity and mortality (Pandit BA 2009). Due to the coccidial disease which causes loss of performance and in severe cases, even mortality. (Tom Tabler and Maria Prado 2022). Reduction of poverty is the primary aim of the backyard poultry. The rural backyard poultry becomes a source of meat when the chickens are slaughtered during festivals, celebrations and sacrifices. It support in all kinds of development of the owners. Now a day, in all countries chickens are reared as a farm species. (Bhimrao N. Jadhav 2019).

## II. MATERIAL AND METHODS

**Study area:-** The present Study was conducted in 23 villages of KHULTABAD tahsil of Chhatrapati Sambhajnagar district From Jun-2023 to Sep-2023.

**Study animals :-** The study animals were backyard chickens of both sexes and different age groups. The majority was Desi chickens but small numbers of Broiler chickens were used.

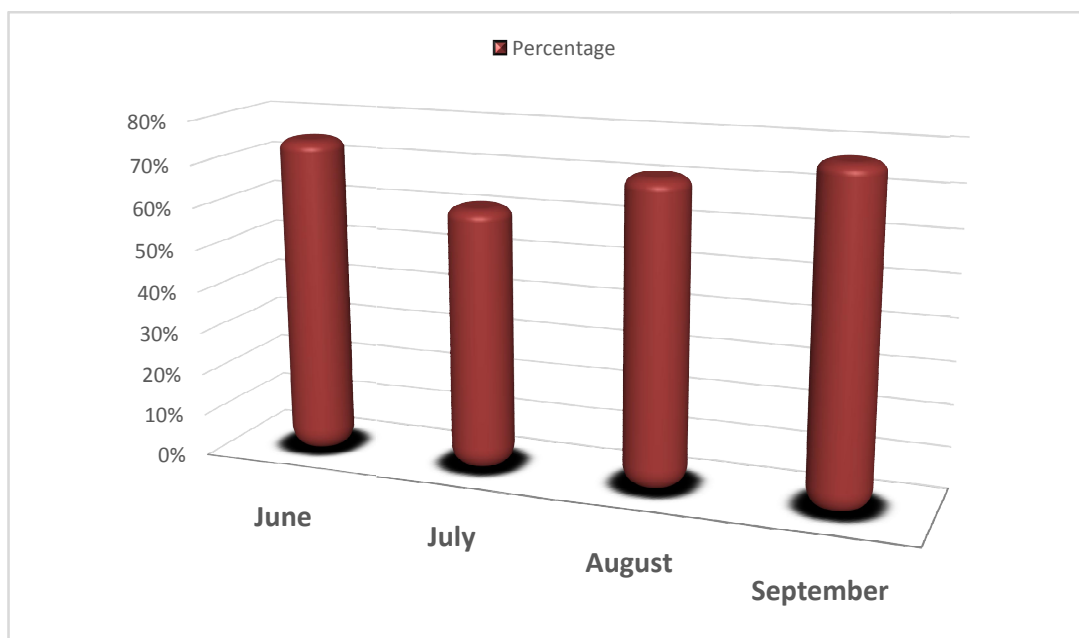
**Sample Collection :-** Fecal sample collected from each chicken from Study area and sample stored in a plastic container(bottle) and immediately transported to practical laboratory at department of zoology Deogiri College Chhatrapati Sambhajnagar. Each fecal sample were processed separately and examined for the presence of oocyst according. Briefly, small amount of fecal sample was added in the cavity block with dilutionfluid. And crush the sample and mix well. The mixture was take on a glass slide Then after, the cover slips is placed atop the sample, making sure no air bubbles are present. And examined under the microscope starting with lower magnification power to high magnification power. The samples were examined for the presence of oocyst. Oocysts are separated from fecal material by sieving and centrifugation at 3000 rpm for 10 min. The oocysts collected were spread out in shallow Petri dish in 2.5% potassium dichromate solution for sporulation. (Bhimrao N. Jadhav 2019).

### III. RESULTS

Present investigation undertaken to know status of coccidiosis, from June 2023 to Sep 2023. 232 samples of dropping were collected from different indigenous chicken of different species reared in poultry farms of different 23 villages of KHULTABAD tehsil. Out of 232 samples 164 were positive for coccidial infection, the percentage prevalence being 70.69%. Month wise prevalence are as follows, June (75%), July (61.67%), August (71.26%), September (77.19%) The lowest percentage of prevalence were recorded in July (61.67%), whereas highest percentage of prevalence in September (77.19%). due to the higher rate of rain fall.

Sr. no.	Period	Examined	Positive	Percentage
1	June	28	21	75%
2	July	60	37	61.67%
3	August	87	62	71.26%
4	September	57	44	77.19%
<b>Total</b>		<b>232</b>	<b>164</b>	<b>70.68%</b>

**Table:** Showing status of coccidiosis in Khultabad tehsil of Chhatrapati Sambhajnagar district of Maharashtra.



**Fig.** Showing status of coccidiosis in Khultabad tehsil of Aurangabad district of Maharashtra

#### IV. DISCUSSIONS

The Monsoon Season prevalence of coccidial infections in Backyard chickens in the present study was 70.68%. which is comparable to the previously reported prevalence of 48(32)% in Jammu region of North India (**Aiman Khursheed, et al., 2022**) And percentage of prevalence being 36.07%, 35.90% respectively in Gangapur & Vaijapur (**Bhimrao N. Jadhav and Susheel V. Nikam**). It is higher than infection recorded, in Benghazi city, Libya was 72% The prevalence of coccidiosis on domestic pigeons (**Samira Al-Agouri1 , Nadia Alrwab**).

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