

## Comparative study of seasonal incidence (Monsoon) of Chicken coccidia in different eight districts , Marathwada region (M.S.)

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### Abstract

During the period of 4 months (Monsoon Season) that is from, Jul,2011 - Oct, 2011, total 699 faecal samples were examined for coccidial infections, out of which 172 samples were positive the percentage of prevalence being 25.40%. Comparative study of different eight districts shows minor differences in prevalence.

**Keywords:** Coccidia oocysts, chicken (Broiler), Intestine.

### INTRODUCTION

Domestic poultry has gained a much greater importance in animal production and constitutes a major factor in over all economy. Several species of Coccidia cause extensive pathological damage and mortality in poultry, cattle, sheep, goat, pig and other animals. Coccidiosis is beloved to be a commonest depreciator or even a potential killer of our poultry. For this reason coccidia have attracted the attention of many workers (Tyzzer,1928; Ray, 1945; Chakravarty & Kar,1947; Gill and Ray, 1960; Hortom & long, 1963; Bhatia and Pande, 1970; Rahaman & Raman, 1970; Balika – Ramiz,1999; Johnson & reid,1971; Deb et al., 1980 and Nikam,1982). According to medical, biological and veterinary 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,& Beed.) in Marathwada region,(M.S.).

### MATERIAL AND METHODS

The material for this study of Coccidia of chicken was obtained from different eight districts i.e. (Aurangabad, Jalna, Parbhani,Nanded, Hingoli, Osmanabad, Latur,& Beed.) in Marathwada region,(M.S.). The different parts of aliminatory canal of slaughtered chicken were examined & proceeded 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 the period of four months (Monsoon Season) i.e.

from Jul,2011 to Oct,2011, faecal samples were examined for coccidia. The prevalence of infection is studied season-wise & district-wise. Comparative study shows that maximum prevalence is in Nanded i.e. (27.95%), Followed by Parbhani (26.96%), Hingoli (26.74%), Aurangabad (25.88%), Latur (24.70%), Jalna (24.69%), Osmanabad (24.44%), and Beed (18.88%).

Month wise analysis in Aurangabad district showed that maximum prevalence was during Jul, (40.0%), followed by Aug, Sep and Oct. (30.0%, 30.0% and 10.0%).

During the period of four months in Auragabad district total 85 samples are examined out of these 22 samples are positive. (25.88%)

Month wise analysis in Jalna district showed that maximum prevalence was during Jul (60.0%), followed by Aug, Sep and Oct. (20.00%, 20.0% and 00.0%).

During the period of four months in Jalna district total 81 samples are examined out of these 20 samples are positive. (24.69%)

Month wise analysis in Parbhani district showed that maximum prevalence was during Jul, (45.83%), followed by Aug, Sep and Oct. (30.0%, 24.0% and 10.0%).

During the period of four months in Parbhani district total 89 samples are examined out of these 24 samples are positive. (26.96%)

Month wise analysis in Nanded district showed that maximum prevalence was during Jul and Aug, (40.0%), followed by, Sep and Oct. (20.83%, and 08.33%).

During the period of four months in Nanded district total 93 samples are examined out of these 26 samples are positive. (27.95%)

Month wise analysis in Hingoli district showed that maximum prevalence was during Jul, (52.0%), followed by, Sep, Oct and Aug. (31.81%, 14.28% and 00.0%).

During the period of four months in Hingoli district total 86 samples are examined out of these 23 samples are positive. (26.74%)

Month wise analysis in Osmanabad district showed that maximum prevalence was during Jul, (48.0%), followed by, Aug, Sep and Oct. (25.0%, 20.0% and 00.0%).

During the period of four months in Osmanabad district total 90 samples are examined out of these 22 samples are positive. (24.44%)

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Month wise analysis in Latur district showed that maximum prevalence was during Jul, (44.0%), followed by, Sep, Aug and Oct. (30.0%, 20.0% and 00.0%).

During the period of four months in Latur district total 85 samples are examined out of these 21 samples are positive. (24.70%)

And last one is, Month wise analysis in Beed district showed

that maximum prevalence was during Sep (35.0%), followed by, Jul, Aug and Oct (19.0%, 16.0% and 08.33%).

During the period of four months in Beed district total 90 samples are examined out of these 17 samples are positive. (18.18%).

The details of seasonal prevalence presented in Table & fig.1-8.

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Jul,2011	20	08	40.0 %
Aug,2011	20	06	30.0 %
Sep,2011	25	06	24.0 %
Oct,2011	20	02	10.0 %
<b>Total</b>	<b>85</b>	<b>22</b>	<b>25.88 %</b>

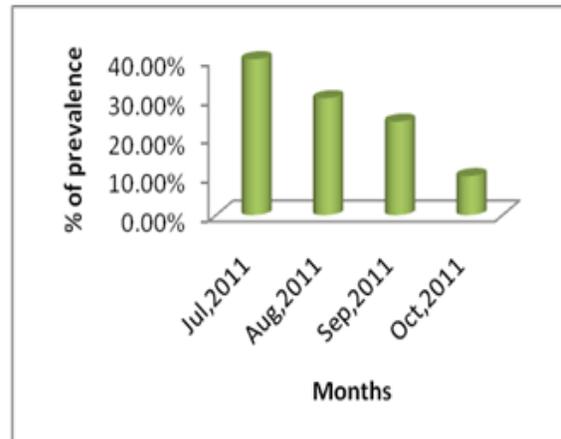


Table and Graph 1. showing prevalence of coccidia in broiler chicken in Aurangabad District during Jul 2011 – Oct 2011 (Monsoon Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Jul,2011	20	12	60.0 %
Aug,2011	20	04	20.0 %
Sep,2011	20	04	20.0 %
Oct,2011	21	00	00.0 %
<b>Total</b>	<b>81</b>	<b>20</b>	<b>38.37 %</b>

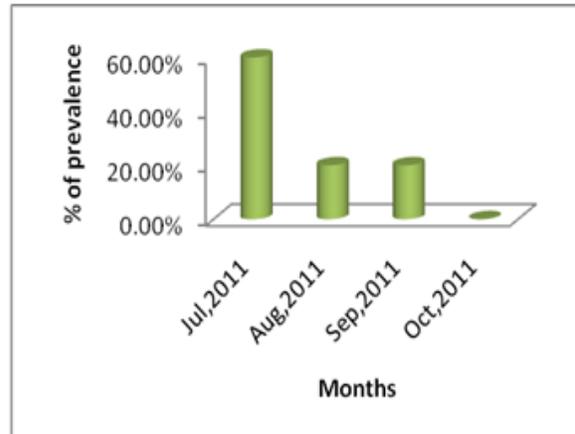


Table and Graph 2. Showing prevalence of coccidia in broiler chicken in Jalna District during Jul 2011 – Oct 2011 (Monsoon Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Jul,2011	24	11	45.83 %
Aug,2011	20	06	30.0 %
Sep,2011	25	05	24.0 %
Oct,2011	20	02	10.0 %
<b>Total</b>	<b>89</b>	<b>24</b>	<b>26.96 %</b>

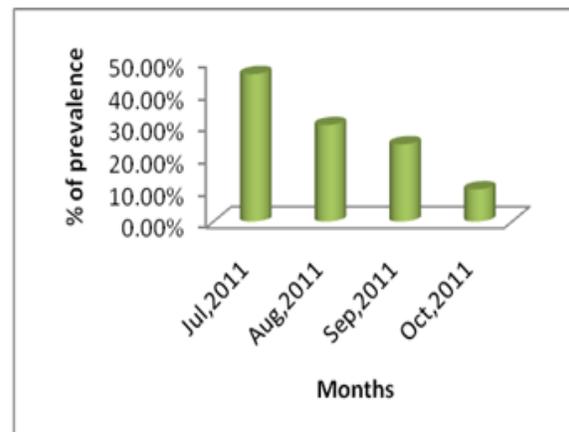


Table and Graph 3. Showing prevalence of coccidia in broiler chicken in Parbhani District during Jul 2011 – Oct 2011 (Monsoon Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Jul,2011	25	10	40.0 %
Aug,2011	24	10	41.66%
Sep,2011	20	04	20.83 %
Oct,2011	24	02	08.33 %
<b>Total</b>	<b>93</b>	<b>26</b>	<b>27.95 %</b>

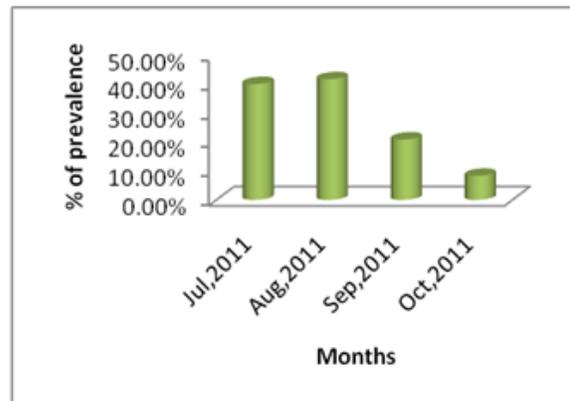


Table and Graph 4. Showing prevalence of coccidia in broiler chicken in Nanded District during Jul 2011 – Oct 2011 (Monsoon Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Jul,2011	25	13	52.0 %
Aug,2011	20	00	00.0 %
Sep,2011	22	07	31.81 %
Oct,2011	21	03	14.28 %
<b>Total</b>	<b>86</b>	<b>23</b>	<b>26.74 %</b>

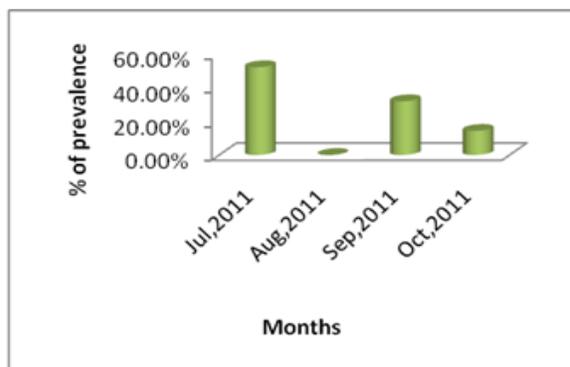


Table and Graph 5. Showing prevalence of coccidia in broiler chicken in Hingoli District during Jul 2011 – Oct 2011 (Monsoon Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Jul,2011	25	12	46.0 %
Aug,2011	20	05	25.0 %
Sep,2011	25	05	20.0 %
Oct,2011	20	00	00.0 %
<b>Total</b>	<b>90</b>	<b>22</b>	<b>24.44 %</b>

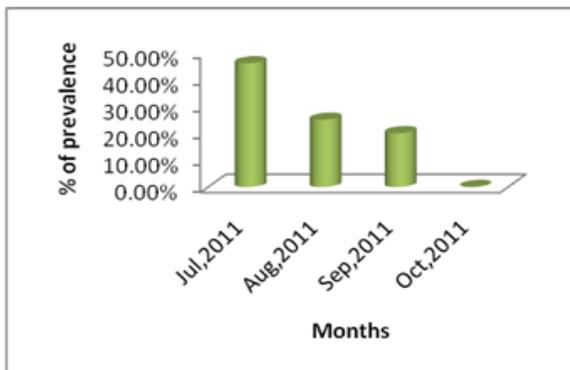


Table and Graph 6. Showing prevalence of coccidia in broiler chicken in Osmanabad District during Nov 2011 – Feb 2011(Winter Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Jul,2011	25	11	44.0 %
Aug,2011	20	04	20.0 %
Sep,2011	20	06	30.0 %
Oct,2011	20	00	00.0 %
<b>Total</b>	<b>85</b>	<b>21</b>	<b>24.70 %</b>

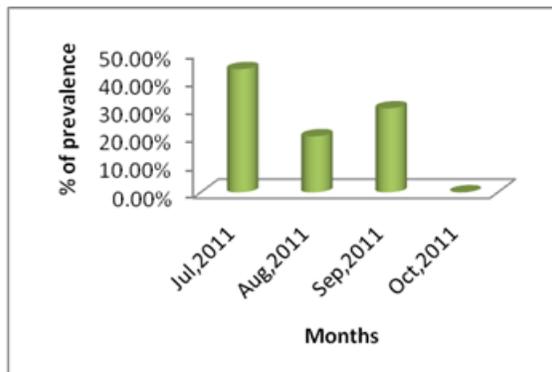


Table and Graph 7. Showing prevalence of coccidia in broiler chicken in Latur District during Jul 2011 – Oct 2011 (Monsoon Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Jul,2011	21	04	19.0 %
Aug,2011	25	04	16.0 %
Sep,2011	20	07	35.0 %
Oct,2011	24	02	08.33 %
<b>Total</b>	<b>90</b>	<b>17</b>	<b>18.88 %</b>

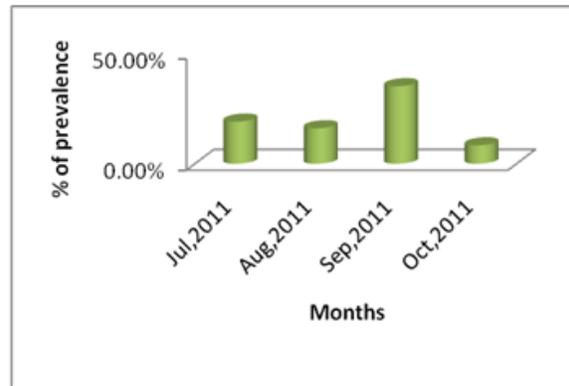


Table and Graph 8. Showing prevalence of coccidia in broiler chicken in Beed District during Jul 2011 – Oct 2011 (Monsoon Season)

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