

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

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### Abstract

During the period of 4 months (Winter Season) that is from, Nov, 2011 to Feb,2011, total 677 faecal samples were examined for coccidial infections, from different eight districts of Marathwada region out of which 172 samples were positive. The percentage of prevalence being 25.40%.

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

### INTRODUCTION

Several species of Coccidia cause extensive pathological damage and mortality in poultry, cattle, sheep, goat, pig and other animals. For this reason Coccidia have attracted of many workers (Chakravarty & Kar, 1947 [1], Deb et al., 1980 [2], Hortom and long, 1963 [3]; Nikam, 1999 [4]; Ray, 1945 [5]; Rahaman and Raman, 1970 [6] and Tyzzer, 1928 [7]). The study of ultra structure of Coccidia have enhanced its biological and veterinary importance. 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 alimentary 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 (Winter season) i.e. from Nov, 2011 to Feb, 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 Aurangabad i.e. (38.37%), Followed by Hingoli (35.22%),

Latur (27.58), Jalna (26.96%), Nanded (21.68%), Parbhani (19.04%), Osmanabad (16.25%), and Beed (15.11%).

Month wise analysis in Aurangabad district showed that maximum prevalence was during Jan, (75.0%), followed by Dec, Nov and Feb. (37.5%, 25.0% and 18.18%).

During the period of four months in Aurangabad district total 86 samples are examined out of these 33 samples are positive. (38.37%).

Month wise analysis in Jalna district showed that maximum prevalence was during Jan (40.0%), followed by Dec, Nov and Feb. (33.33%, 17.39% and 15.0%).

During the period of four months in Jalna district total 89 samples are examined out of these 20 samples are positive. (26.96%)

Month wise analysis in Parbhani district showed that maximum prevalence was during Dec, (30.0%), followed by Jan, Feb and Nov, (22.72%, 14.28% and 09.52%).

During the period of four months in Parbhani district total 84 samples are examined out of these 16 samples are positive. (19.04%)

Month wise analysis in Nanded district showed that maximum prevalence was during Dec, (33.33%), followed by, Jan, Feb and Nov, (28.57%, 23.80%, and 00.0%).

During the period of four months in Nanded district total 83 samples are examined out of these 18 samples are positive. (21.68%)

Month wise analysis in Hingoli district showed that maximum prevalence was during Nov, (59.09%), followed by, Jan, Feb and Dec. (52.38%, 28.0% and 25.0%).

During the period of four months in Hingoli district total 88 samples are examined out of these 31 samples are positive. (35.22%)

Month wise analysis in Osmanabad district showed that maximum prevalence was during Dec, (45.0%), followed by, Feb, Nov and Jan. (20.0%, 00.0% and 00.0%).

During the period of four months in Osmanabad district total 80 samples are examined out of these 13 samples are positive. (16.25%)

Month wise analysis in Latur district showed that maximum prevalence was during March, & Dec, (52.0%), followed by, Feb, Jan, and Nov. (25.0%, 18.18% and 9.09%).

During the period of four months in Latur district total

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87samples are examined out of these 24 samples are positive. (27.58%)

And last one is, Month wise analysis in Beed district showed that maximum prevalence was during Dec, (45.0%), followed by, Feb, Nov and Jan, (19.04%, 00.0% and 00.0%).

During the period of four months in Beed district total 86 samples are examined out of these 13samples are positive. (15.11%). The details of seasonal prevalence presented in table and fig.1-8.

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Nov	20	05	25.0 %
Dec	24	09	37.5 %
Jan	20	15	75.0 %
Feb	22	04	18.18 %
<b>Total</b>	<b>86</b>	<b>33</b>	<b>38.37 %</b>

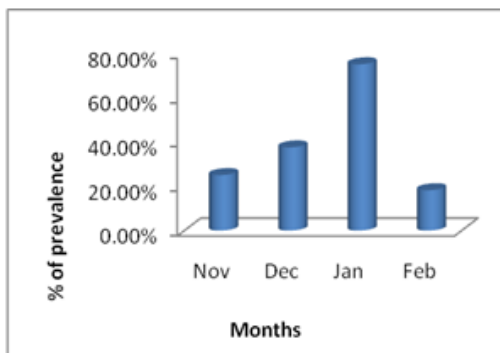


Table and Graph 1. showing prevalence of coccidia in broiler chicken in Aurangabad District during Nov 2011 – Feb 2011(Winter Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Nov	23	04	17.39 %
Dec	21	07	33.33 %
Jan	25	10	40.0 %
Feb	20	03	15.0 %
<b>Total</b>	<b>89</b>	<b>20</b>	<b>36.0 %</b>



Table and Graph 2. Showing prevalence of coccidia in broiler chicken in Jalna District during Nov 2011 – Feb 2011(Winter Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Nov	21	02	9.52 %
Dec	20	06	30.0 %
Jan	22	05	22.72 %
Feb	21	03	14.28 %
<b>Total</b>	<b>84</b>	<b>16</b>	<b>19.04 %</b>

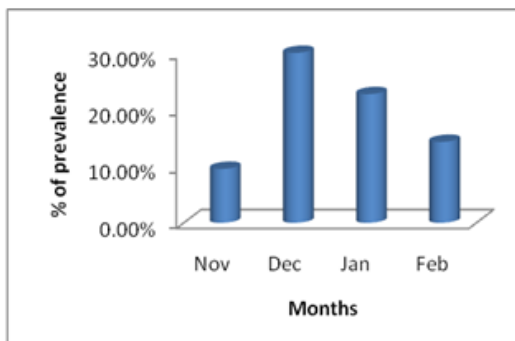


Table and Graph 3. Showing prevalence of coccidia in broiler chicken in Parbhani District during Nov 2011 – Feb 2011(Winter Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Nov	20	00	00.0 %
Dec	21	07	33.33 %
Jan	21	06	28.57 %
Feb	21	05	23.88 %
<b>Total</b>	<b>83</b>	<b>18</b>	<b>21.68 %</b>



Table and Graph 4. showing prevalence of coccidia in broiler chicken in Nanded District during Nov 2011 – Feb 2011(Winter Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Nov	22	13	59.09 %
Dec	20	05	25.0 %
Jan	21	11	52.38 %
Feb	25	07	28.0 %
<b>Total</b>	<b>88</b>	<b>31</b>	<b>36.0 %</b>

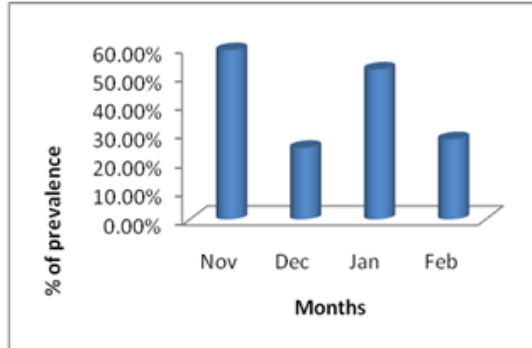


Table and Graph 5 Showing prevalence of coccidia in broiler chicken in Hingoli District during Nov 2011 – Feb 2011(Winter Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Nov	20	00	00.0 %
Dec	20	09	45.0 %
Jan	25	00	00.0 %
Feb	20	04	20.0 %
<b>Total</b>	<b>80</b>	<b>13</b>	<b>16.25 %</b>

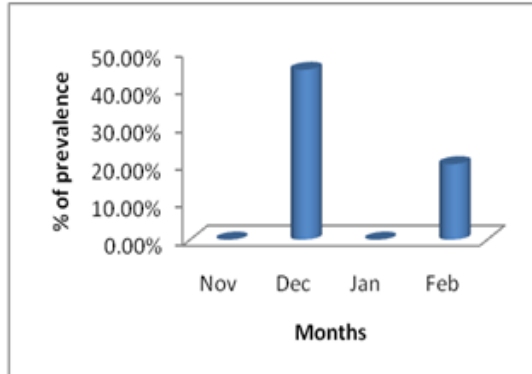


Table and Graph 6. Showing prevalence of coccidia in broiler chicken in Osmanabad District during Nov 2011 – Feb 2011(Winter Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Nov	22	02	09.09 %
Dec	25	13	52.0 %
Jan	22	04	18.18 %
Feb	20	05	25.0 %
<b>Total</b>	<b>87</b>	<b>24</b>	<b>27.58 %</b>

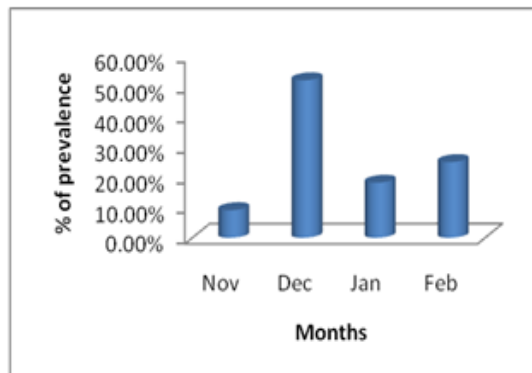


Table and Graph 7. Showing prevalence of coccidia in broiler chicken in Latur District during Nov 2011 – Feb 2011(Winter Season)

Period	No. of Sample		% of Prevalence
	No. of Sample Examined	No. of Sample Positive	
Nov	20	00	00.0 %
Dec	20	09	45.0 %
Jan	25	00	00.0 %
Feb	21	04	19.04 %
<b>Total</b>	<b>86</b>	<b>13</b>	<b>15.11 %</b>



Table and Graph 8. showing prevalence of coccidia in broiler chicken in Beed District during Nov 2011 – Feb 2011(Winter Season)

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