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POPULATION OF GASTROINTESTINAL NEMATODE IN *GALLUS GALLUS DOMESTICUS* AT BEED, MAHARASHTRA

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The present paper deals with the population study of nematode parasites in *Gallus Gallus domasticus*. 70% fowl of Beed District were found affected by nematode parasites. The species identified were *Acaridae galli* and *Hetrakis gallinae*.

Domestic fowl (Gawaran chicken) is very important at economic point of view. It is precious food for human beings and maintained good balance of diet. But domestic fowl are not maintained in poultry farm in these areas so chances to cause infection are high. After the investigation some of the hosts were found infected with nematode identically these are *Acaridae galli* and *H. gallinae*. This infection reduces the food value of chicken. This infection reduces the food value. These parasitic nematodes were carefully collected and the recorded data was processed for statistical study *i.e.* seasonal variation of infection.

The host's intestine were collected from the various markets from district Beed (Maharashtra). In the year January to December, 2000 proper care was taken for hosts intestine throughout the year in all months and in all seasons with more or less periodicity. Collected intestine brought to the laboratory for further experimentation. The nematodes in living condition were examined under the binocular microscope and their important features were noted. Then the specimens were placed in petri dish containing 70% alcohol and 30% glycerin. Each specimen was slightly straightened and kept for identification. Later dehydration and clearing to evaporate at room temperature until the nematodes were left in pure glycerin. The worms were mounted in glycerin. With the help of collected data, the incidence of infection and seasonal variation were calculated.

Description : The statistical analysis regarding incidence and seasonal variation of infection shows that the data of total examined hosts, non-infected host, collected nematode parasites *i.e. A. galli* and *H. gallinae* is given in Table I. As compare to each other incidence of infection *of A. galli* almost three times more than *H. gallinae*. The data shows that the total number of nematodes 1929 out of them *A. galli* covers a population over 1408 individuals. Except April and December, *H. gallinae* shows average population but these two months show less population *i.e.* 04 and 18 respectively. But abundance in February and June (1998-99). Table II shows the population of nematode parasites *A. galli* and *H. gallinae* seasonlly *viz.* summer, rainy and winter.

Final study application comes to Table III. It clearly indicates the percentage of infection seasonally as well as yearly from Table III below. The total incidence of infection in *A. galli* and *H. gallinae* were ± 73% and ± 27%, respectively.

Table I : Record of total hosts examined with infected hosts, non infected hosts and collected nematode parasites in 2000.

S.No.	Month & Year	Total hosts examined	Infected hosts	Non-infected hosts	*A. galli*	*H. gallinae*	Total
1.	January	48	34	14	113	54	167
2.	February	47	31	16	73	76	149
3.	March	41	28	13	127	23	150
4.	April	34	26	08	135	04	139
5.	May	31	21	10	83	26	109
6.	June	48	34	14	86	63	149
7.	July	39	26	13	85	77	162
8.	August	61	43	18	162	45	207
9.	September	60	43	17	167	56	223
10.	October	47	34	13	150	56	206
11.	November	55	38	17	108	23	131
12.	December	49	34	15	119	18	137
Total		560	392	168	1408	521	1929

Table II : The seasonal variation of *A. galli* and *H. gallinae* in the year 2000.

S.No.	Season	Host Examined	Infected Hosts	Non-Infected Hosts	*A. galli*	*H. gallinae*	Total
1.	Summer	153	106	047	418	129	547
2.	Rainy	208	142	062	500	241	741
3.	Winter	199	140	059	490	151	641
Total		560	392	168	1408	521	1929

Table III : Seasonal and annual incidence of *A. galli* and *H. gallinae*.

S.No.	Incidence of *A. galli*	Incidence of *H. gallinae*	Total incidence
1.	76.41	23.58	69.28
2.	67.47	32.52	70.19
3.	76.44	23.55	70.35
Total	± 76.44	± 26.55	± 69.94

Note : Incidence infection expressed in the term of percentage.

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