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RESEARCH ARTICLE

Studies on Longevity and Fecundity of a Pest *Leptista Pygmaea* (Baly.) on Rice Plant *Oryza Sativa* (Linn.)

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ABSTRACT

Rice is a staple food of more than 60 percent of the world population in India. Studies were carried out to study the longevity and fecundity of Leptista pygmaea (Baly.) on its host plant; rice. Pre-oviposition, oviposition and post-ovposition of Leptispa pygmaea was 25.97, 9.15 and 7.00 days. The longevity of Leptispa pygmaea was varied from 25-70 days with an average of 40.00 days. The fecundity of female Leptispa pygmaea was recorded from 150-278 eggs with an average of 209.46 eggs per female.

Keyword: *Leptista pygmaea, Rice Hispa, longevity, fecundity*

INTRODUCTION

Leptista pygmaea is a serious pest of rice which destroys the leaves and stem of rice plants (Hariparasann 1998). Rice Hispa reduces the production of rice about 68-73 percent in a heavy quantity and in quality (Lee, 1947). The selected pest is a member of Family- Crysomelidae, Order- Coleoptera of Class- Insecta (Lefroy, 1947). The life history of selected pest complicated in three developmental stages; egg, larva and adult (Lefroy, 1909). Adult and larvae of *Leptista pygmaea* infesct the newly growing leaves and soft parts of stem of plant (Lee, 1947). Present experiment was conducted to study the longevity and fecundity of selected pest; *Leptista pygmaea* (Baly.).

MATERIAL AND METHOD

To study the longevity and fecundity of *Leptista pygmaea*, the experiment was carried out on its host; rice at selected site; village- Raaya of district- Mathura during experimental year; 2000-2001. For this study some adults of *Leptista pygmaea* were collected from selected field in support of Patel and Shah (1985). And then they were reared in self prepared net houses at selected site. Observations were recorded caringly with the help of stereomicroscope, electron microscope, hand lens and camara lucida from egg to adult stage as suggested Petchart (1963).

RESULTS AND DISCUSSION

Table no.-1 and graph no.-I reveal that pre-oviposition was varied from 6-72 days with an average of 25.97 days. This work has slight difference with the findings of Bharadwaj and Powar (1969) who reported the fecundity of leaf minor hispa was 22.04 days. Oviposition period was recorded 3-15 days with an average of 9.15 days. This experimental finding of author is not match with the findings of Lee F. (1947) who recorded oviposition of leaf minor hispa was 7.87 days. Moreover, the post-oviposition was recorded 3-12 with an average of 7.00 days. This finding of author is well support with the findings of Patel and Shah (1985) who calculated the post-oviposition of *Leptispa pygmaea* was 7.23 days. The total longevity was recorded from 25-70 days with an average of 40.00 days. Present findings of author cannot match with the findings of Petchart (1963) who recorded the longevity of *Leptispa*

pygmaea was recorded 36.07 days. The fecundity of female *Leptispa pygmaea* (Baly.) was recorded 150-278 eggs per female with an average of 209.46 eggs. This finding of author is slight difference with the findings of Pokharkar C.B. (1999) who calculated the fecundity of female *Leptispa pygmaea* (Baly.) was 158.47 eggs per female.

Table- 1: Observations on the fecundity and longevity of mated *Leptispa pygmaea* (Baly.)

Sr. No.	Date of Emergence	Pre-Oviposition Period	Oviposition Period	Post-Ovipsition Period	Total Longevity	Fecundity
1.	04.07.2000	72	4	12	52	170
2.	03.08.2000	60	6	6	56	260
3.	06.09.2000	22	10	9	34	278
4.	01.10.2000	8	12	4	44	272
5.	02.11.2000	8	15	8	25	240
6.	28.11.2000	8	15	8	36	200
7.	04.12.2000	7	10	4	27	230
8.	10.01.2001	9	11	3	30	212
9.	25.02.2001	22	10	3	35	231
10.	10.03.2001	15	8	6	25	168
11.	02.04.2001	18	8	7	62	198
12.	10.05.2001	32	3	10	70	160
13.	03.06.2001	58	5	11	24	150
Range		**6-72**	**3-15**	**3-12**	**25-70**	**150-278**
Mean		**25.97**	**9.15**	**7.00**	**40.00**	**209.46**

Graph- I: Relation in pre-oviposition, oviposition, post-oviposition period, longevity and fecundity of *Leptispa pygmaea* (Baly.)

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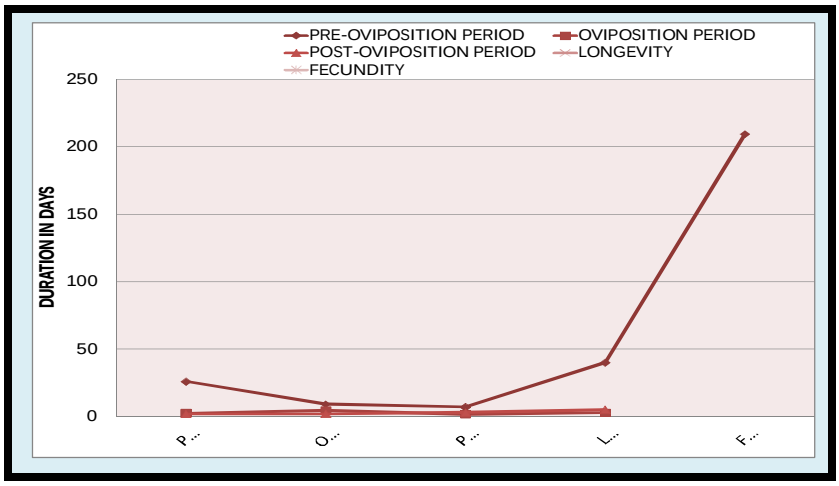

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