

## FEEDING POTENTIAL OF *CHRYSOPERLA ZASTROWI SILLEMI* ON SOLENOPSIS MEALY BUG, *PHENACOCCLUS SOLENOPSIS TINSLEY* INFESTING COTTON

**Bhojani D.V.\*, Desai H.R., Shinde C.U. and Solanki B.G.**

*Biocontrol Laboratory, Department of Agricultural Entomology, Navsari Agricultural University, Navsari -396 450*

*Email: [hordesai@nau.in](mailto:hordesai@nau.in)*

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**Abstract:** The feeding potential of *Chrysoperla zastrowi sillemi* (Esben-Peterson) on eggs (ovisac), nymphs and female adults of mealy bug (*Phenacoccus solenopsis*) were studied at Bio-control Laboratory, Department of Agricultural Entomology, N. M. College of Agriculture, Navsari Agricultural University, Navsari during September to October 2014. In no choice feeding against cotton mealy bugs, the feeding potential of larvae of *C. zastrowi sillemi* was found more on eggs (ovisac) and nymphs than female adults (freshly formed). On eggs of mealy bug, the feeding potential of larvae of *C. zastrowi sillemi* was 1778 to 2035 (Av. 1886.60 ± 74.88) eggs with consumption rate of 177.80 to 203.50 (188.6 ± 7.49) eggs per day whereas on nymphs of mealy bug, it was 812 to 899 (Av. 845.50 ± 23.44) nymphs with consumption rate of 81.20 to 89.90 (Av. 84.76 ± 2.21) nymphs. When fed exclusively on female adults, it was 119 to 141 (Av. 132.15 ± 6.37) female adults with consumption rate of 13.20 to 16.90 (14.87 ± 0.89) adults per day. The larvae of *C. zastrowi sillemi* developed little bit faster when fed on female adults of mealy bug than fed on eggs and nymphs. In free choice feeding of mixed stages of mealy bug, the feeding potential was found to be 886 to 998 (Av. 938.65 ± 35.09) mealy bug exhibited preference to eggs and nymphs of mealy bug more as indicated by proportion of 408 to 477 (440.90 ± 18.93) eggs, 364 to 422 (395.70 ± 15.82) nymphs and 94 to 113 (102.05 ± 4.72) female adults in mixed stages offered. The consumption rate was 88.6 to 107.2 (94.93 ± 5.27) mixed stages of mealy bug per day in its developmental durations of 9 to 10 (Av. 9.75 ± 0.44) days.

**Keywords:** *Chrysoperla zastrowi sillemi*, Feeding potential, *Phenacoccus solenopsis*

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\*Corresponding Author

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