

Studies on Biology and Morphometrics of papaya mealybug, *Paracoccus marginatus* Williams and Granara de Willink on Papaya

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ABSTRACT

Studies on biology of papaya mealybug was carried out on papaya leaves under laboratory conditions of mean temperature ($25 \pm 2^\circ\text{C}$) and relative humidity ($75 \pm 2\%$) in the Department of Entomology, Institute of Frontier Technology (IFT), RARS, Tirupati. Each female of *Paracoccus marginatus* Williams and granara de willink lay about 400 to 600 eggs. Egg period ranged from 8 to 10 days with an average of 8.60 days. Females undergo only three instars and no sexual dimorphism between male and female instars. However, the duration of female I, II, III instar nymphs were 5.8, 5.2 and 4.6 days respectively. Males undergo four instars and the duration of I, II, III and IV instar male nymphs were 5.8, 6, 2.6 and 4.2 days respectively. Males have longer development period (27.2 days) than females (24.2 days). The average length and breadth of the female I, II, III instar nymphs and adult female was 0.35 ± 0.07 , 0.24 ± 0.09 ; 0.61 ± 0.09 , 0.41 ± 0.11 ; 0.93 ± 0.09 , 0.48 ± 0.08 and 2.32 ± 0.14 , 1.04 ± 0.11 respectively. The average length and breadth of the male I, II, III, IV instar nymphs and adult male was 0.35 ± 0.07 , 0.24 ± 0.09 ; 0.61 ± 0.09 , 0.41 ± 0.11 ; 0.81 ± 0.08 , 0.35 ± 0.09 ; 0.98 ± 0.08 , 0.47 ± 0.07 and 1.47 ± 0.04 , 0.44 ± 0.08 respectively.

Key words : Biology, Nymphs, Papaya mealybug, *Paracoccus marginatus*.