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# Life History of Sugarcane Whitefly (*Aleurolobus barodensis* Mask) under South Gujarat Condition* (*Aleyrodidae* : Homoptera)

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Sugarcane is the most important cash crop widely grown in south Gujarat area. Whitefly, (*Aleurolobus barodensis* Mask.) causes enormous losses in tonnage as well as recovery. Preliminary studies on the biology of this pest has been done elsewhere in India (Hamid Mahmood (1955) and Sandhu and Singh (1963). A study was therefore undertaken on detail biology of the pest.

Life history of the pest was studied at Navsari, Gujarat India. The average room temperature and relative humidity during the study was 29.24°C and 89.79 per cent, respectively. Huge culture of the pest was obtained from heavily infested fields and reared on potted plants. The freshly emerged males and females were paired in glass-chimney. The observations on duration and description of all the stages were recorded are reported hereinafter.

The avarage duration of egg, first, second and third nymphal instar, puparia as well as male and female adult was 8.6 ± 0.51, 2.43 ± 0.65, 4.00 ± 0.78, 4.42 ± 0.51, 10.67 ± 0.98, 28.60 ± 2.20 and 32.62 ± 0.65 days, respectively.

The average pre-oviposition, oviposition and post-oviposition periods were 1.15 ± 0.13, 29.27 ± 0.80 and 2.20 ± 0.25 hours, respectively. Freshly laid eggs were conical, creamy with 0.22 ± 0.02 mm in length and 0.12 ± 0.02 mm in width.

First instar nymph was oval, pale yellow gradually turned to shiny black and 0.34 ± 0.02 mm in length and 0.18 ± 0.02 mm in width. Second instar nymph was creamy yellow subsequently changed to black and 0.57 ± 0.06 mm in length and 0.30 ± 0.03 mm in width. A smoky white fringe could be noticed all around their body. Prominent white waxy fringe could be seen around the body of third nymphal instar. It was 1.20 ± 0.03 mm in length and 0.61 ± 0.03 mm in width. Newly formed pupariam was ashy, changed to back and covered with white waxy powder around the body. It measured 2.04 ± 0.39 mm in length and 0.98 ± 0.19 mm in width. The adult was tiny with smoky white wings. The length of female adult was 1.71 ± 0.12 mm and width

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of abdomen was 0.66 ± 0.04 mm. It possessed needle like ovipositor. The male adult was 1.18 ± 0.09 mm in length, with 0.26 ± 0.03 mm broad abdomen and a pair of claspers. Single female laid 51.0 ± 9.90 eggs. These findings are more or less in confirmation with the results reported by Hamid Mahmood (1955) and Sandhu and Singh (1963).

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