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Heavy incidence and damage by *Rastrococcus mangiferae* (Green) Ferris in mango**S. Kowsika*, R. Divya, N. Dilipsundar and N. Chitra***Department of Agricultural Entomology, Tamil Nadu Agricultural University, Coimbatore- 641 003, Tamil Nadu, India***Corresponding author: kowsikaentomology@gmail.com**

Mango (*Mangifera indica* L.) the 'King of Fruits' is an important fruit crop in tropical and subtropical countries of the world. Mango is vulnerable to a variety of pests including insects, mites, pathogens and vertebrates. Mango originated from Indo-Burma region and is cultivated in India, China, Thailand, Mexico, Pakistan, Philippines, Indonesia, Brazil, Nigeria and Egypt. India contributes about 50% of the world's mango production with 2.5 million hectares with an annual production of 18.0 million tons (Reddy *et al.*, 2018). Insect pests pose a valid threat to sustainable cultivation of mangoes. An elaborate compilation of insect pests in mango indicates around 400 species of insect pests from different parts of the world (de Laroussilhe 1980; Tandon and Verghese 1985; Veeresh 1989; Pena *et al.* 1998). Among the insects sucking pests (leafhoppers, mealybugs, scales, thrips) and mites form a larger group causing huge yield loss. Sucking insects with shorter life cycles and ability to reproduce asexually result in their huge abundance. Further, frequent outbreaks owing to climatic variation pose serious challenge through both direct and indirect losses (Jayanthi *et al.*, 2014).

Approximately 20 species of mealybugs are reported to infest mango. Among them, *Drosicha mangiferae* (Green), *D. stebbingi* (Green), and *Rastrococcus iceryoides* (Green), are considered to be serious pests and are more frequently reported. They are widely distributed in India, Nepal, Bhutan, China, Pakistan and Bangladesh. *R. iceryoides* is also reported from Malaysia (Tandon and Verghese 1985). Under genus *Rastrococcus* of the 22 species described, three species, *R. invadens* Williams, *R. iceryoides* (Green) and *R. mangiferae* (Green) are documented in mango from India (Narasimham and Chacko, 1988 and 1991).

A survey was conducted in February, 2022 at Tamil Nadu Agricultural University (TNAU) orchard (11.005567 N, 76.930086 E). Fifty to sixty years old trees were observed with heavy infestation of the ornate mealybug species completely covering the foliage. Population densities of the mealybug were noted to be significantly higher in the mango trees on the abaxial leaf surface; approximately 10 to 15 numbers/cm² was observed. Infestation was severe on older leaves later shift towards young tender leaves was noticed. Appearance of sooty mold on leaves and

parasitized mealybug cadavers with exit holes were also observed.

Externally adults were observed to be oval in shape with dorsum pale yellow and with thick white mealy coating. Stout cottony tassels are seen on the margin, increasing in length from anterior to posterior end. Both immatures and adult were present with 30 prominent wax tassels.

The collected specimens were slide mounted based on the protocol given by Bahder *et al.*, (2015) with slight modifications and observed under phase contrast microscope LEICA DM750. Based on the following characters: antennae slender with 9 segments, circulus oval shaped situated in middle of third abdominal segment, posterior pair of ostioles,

anal ring situated a short distance from apex of abdomen, cerarii numbering 15 pairs, each on a more or less round to oval sclerotized base, larger in area than anal ring, trilocular disc pores being present in a ventral marginal zone on thorax, the specimen was identified to be *R. mangiferae* which was in concurrence with the key to species of *Rastrococcus* provided by Williams, 1989.

The incidence of *R. mangiferae* was reported from Coimbatore India by Ramakrishna Ayyar on mango in 1914. Narasimham and Chako (1988) have reported this species to be more common in southern India than *R. invadens*. If left unnoticed this pest may lead to significant loss in size and weight of fresh mangoes and become a growing threat to mango orchards.



Rastrococcus mangiferae found on the abaxial leaf surface



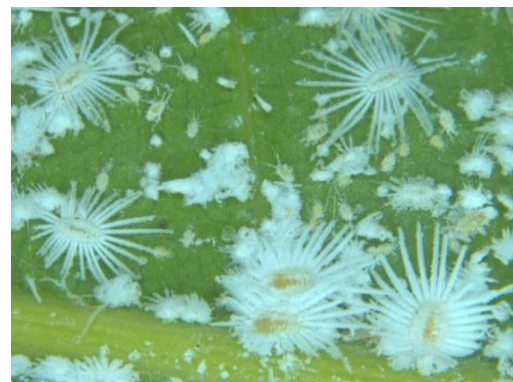
Female



Male



Parasitized



Unparasitized

Rastrococcus mangiferae (Green) Ferris 1954

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