

**STUDY ON THE IDENTIFICATION OF WHITEFLY SPECIES
AND THEIR ASSOCIATED PARASITIDS IN SELECTED
MEDICINAL CROPS**

BY

AYSHA ABDUL HASSAN



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**DEPARTMENT OF AGRONOMY
FACULTY OF AGRICULTURE
EASTERN UNIVERSITY
SRI LANKA**

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ABSTRACT

At present whitefly is one of the serious pests in Sri Lanka which attacks numerous crops including medicinal crops. As these insects develop resistance to several groups of insecticides, high cost of insecticides against new bio-types, the elimination of their natural enemies by abuse and misuse of insecticides and their wide host range had made it difficult to control this insect pest. The increasing demand for insecticide free products and self defense of consumers for toxicity of insecticides force the cultivators to take bio-control strategy to control the whitefly.

Among the medicinal plants examined in the Agronomy farm of Eastern University, Sri Lanka, three medicinal plants were identified as the host-plants for whitefly. Whitefly infested leaves were collected to separate the parasitized and non-parasitized pupae for the identification of the species of parasitoids and whiteflies respectively. Morphological characteristics were observed and recorded to identify the whitefly species and their associated parasitoids.

Three host-medicinal plants, *Solanum trilobatum*, *Eucalyptus* and *Syzygium cumini* with two whitefly species namely, *Trialeurodes vaporariorum* and *Trialeurodes abutiloneus* were found in the Agronomy farm Eastern University, Sri Lanka. Among the host-medicinal plants, *Solanum trilobatum* and *Eucalyptus* were found infested by *Trialeurodes vaporariorum* and *Syzygium cumini* was infested by *Trialeurodes abutiloneus* during the study period.

Three hymenopteran parasitoids namely, *Encarsia guadeloupeae*, *Encarsia pergandiella* and *Eretmocerus californicus* were also detected as the parasitoids of these whiteflies in the Agronomy farm Eastern University, Sri Lanka.

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