

Parasitoids associated with whitefly species, *Aleurodicus dispersus* in selected fruit crops in the Batticaloa district

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Abstract

Fruit crops are an important source of income for the rural people. The quality and yield of fruit production may be reduced by insect pest damage. At present whitefly is one of the serious pests in Sri Lanka, which attacks numerous crops including fruit crops. As these insects developed 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 have make it difficult to control this insect pest. The increasing demand for insecticides free products and self defense of consumers for toxicity of insecticides force the cultivators to take bio-control strategy to control the whitefly outbreaks.

Two fruit crops banana and guava were identified as the host-plant of whitefly, *Aleurodicus dispersus* in the Batticaloa district during the study period from June 2007 to September 2007. Whitefly infested leaves were collected and parasitized and non-parasitized pupae were separated based on their colouration; the parasitized pupae were black in colour and non-parasitized pupae were pale in colour. Non-parasitized pupae of whitefly were brushed out and parasitized pupae were kept with leaves into the vial until the emergence of parasitoids. Morphological characteristics of emerged parasitoids were recorded to identify the species of whitefly associated parasitoids with the help of the pictorial guide and taxonomic guide. Three hymenopteran parasitoids namely, *Encarsia guadeloupa*, *Encarsia cibensis* and *Eretmocerus mundus* were recorded as the parasitoids of the whitefly species, *Aleurodicus disperses*, infested the fruit crops in the Batticaloa district.

Keywords: Whitefly, Host-plant, Pupae, Parasitoid, Hymenopteran, *Encarsia guadeloupa*, *Encarsia cibensis*, *Eretmocerus mundus*.