B-29 Biological control of the sugarcane plant hopper *Pyrilla perpusilla* Walker by using the parasitic moth *Epiricania melanoleuca* (Fletcher) in Sri Lanka

J A U T Seneviratne, N C Kumarasinghe
Div of Pest Management, Sugarcane Research Institute, Uda Walawe

Pyrilla perpusilla (Homoptera: Lophopidae) is a serious sucking pest of sugarcane in Sri Lanka. The damage to the sugar cane crop by the pest includes drying and withering of leaves due to de-sapping and affected photosynthesis due to the fungal disease 'Sooty Mould' on the honey dew medium exuded by the pest. As the pest populations were at higher levels in spite of the role of the indigenous egg parasitoid *Parachrysocharis javensis* Girault and a few other natural enemies, it was decided to introduce the parasitic moth *Epiricania melanoleuca* into the sugarcane plantations of Sri Lanka.

The cocoons of the parasitoid *E. melanoleuca* were imported from Pakistan, and a stepwise multiplication programme was conducted before releasing them into the plantations. Eggs of the parasitoid were collected from female moths that emerged from imported cocoons. Parasitoids were multiplied in the laboratory, field cages and multiplication plots. After sufficient build up of parasitoid populations, the egg masses collected from the multiplication plots were released in 2 batches (1832 and 1740) in the fields highly infested with *Pyrilla* at Sevanagala in August 1992 and March 1993 respectively.

The records showed that the populations of *Pyrilla* were above 60 individuals per leaf before release. However, since the second release of eggs, a continuous and rapid increase of the parasitoid population was observed with gradual decline of *Pyrilla* population. The post release records showed that populations of *Pyrilla* were maintained below 1 individual per leaf after establishment of the parasitoid.