

## Determining the best application time of insecticides for controlling *Deltocephalus menoni* (Hemiptera: Cicadallidae), a vector of Sugarcane white leaf disease in Sri Lanka

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White Leaf Disease in sugarcane caused by phytoplasma which is transmitted by *Deltocephalus menoni* (Hemiptera: Cicadallidae) has become a serious threat to sugarcane industry in Sri Lanka. Monitoring of vector populations and the application of insecticides are required to contain secondary transmission of the disease. This study aims at studying the variation in the secretion of honey dew by *D. Menoni* by its feeding during a 24-hour period of the day to determine the best time for population studies and insecticide application. The study was conducted at the Entomology Laboratory of the Sugarcane Research Institute, Sri Lanka, using insect-feeding chambers fixed to the top leaf of 4-month-old sugarcane plants of the variety SL 96 128. Water-starved 150 insects; fifty from each nymph and male and female adults were inserted individually into the feeding chamber. The area stained due to the honey dew excreted by the insect was measured hourly using the Bromocresol-treated filter papers, and its variation was analysed by the Analysis of Variance and mean separation by Least Significant Difference at 5% probability. The results revealed that both the nymphs and the adult males and females showed similar pattern of honey dew secretion, and hence, their feeding. The excretion of honey dew was significantly higher from 6.00 am to 9.00 am and 4.00 pm to 7.00 pm than that at other times of a day. Population studies and insecticide application for controlling of *D. Menoni* should be carried out during these time periods for more efficient results.