

Influence Of Varieties Under Vegetative And Flowering Growth Stages Of Rice On Population Of Brown Plant Hopper *Nilaparvata Lugens* (Stål) In Ampara District Of Sri Lanka

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Brown Planthopper (BPH), *Nilaparvata lugens* (stål) is one of the major pests which causes significant yield loss annually in Sri Lanka and has become one of the most serious pests of rice in the last decade in Ampara district. Identification of resistant varieties is essential as biotypes of the pest are changing its behavior from time to time and the earlier released resistant rice varieties showing susceptibility to the pest. So verification of resistant reaction of already reported donors is important. This study was carried out to screen the levels of resistance of nine rice varieties by antixenosis studies under net house and sampling method with sticky boards under field condition. Where 200 pairs of *N. lugens* adults were infested on 30 Days old seedlings under the net house and simple sampling method using sticky board for estimating the population of brown planthopper nymphs on flowering stages were evaluated by using Duncan's multiple range test, which results indicated that at both vegetative and flowering stages of Bg 94-1 and BG 352 were highly susceptible to BPH than other varieties and these varieties were released by the Department of Agriculture in 1975 and 1992, respectively. From the results, it clearly shows that the level of resistance had been changed over the years and the varieties recommended as resistant to BPH lost their characteristics and become susceptible to BPH. In order to recommend, existing rice varieties need to be screened against the potential pests to enable the farmer to minimize the usage of inorganic pesticides.

Key words: *Nilaparvata lugens*, BPH, Rice, Antixenosis