

# Population Fluctuations of *Scirpophaga innotata* and *Nilaparvata lugens* In Various Varieties and Growing Age of Rice Plants

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## Abstract

Stem borer (*Scirpophaga innotata*) and brown planthopper (*Nilaparvata lugens*) are known as important pests in rice plants that attack plants from the nursery until just before harvest. Efforts to introduce new high-yielding varieties need to be carried out to provide farmers with references to varieties that are resistant or not to pest populations in the field. This study aims to look at the population levels of stem borer and brown planthopper pests at different planting ages for several test varieties. The method used was a randomized block design with 6 varietal treatments (IR14, IR15, IR16, IR18, IR19, IR20) and 3 tests with sampling intervals every week until 77 days after planting (HST). Data were analyzed using the Analysis of Variance (Anova) method and the Least Significant Difference Test (LSD). The results showed that the highest population of stem borers was found in plants aged 63 HST, namely 8 individuals/clump, while the lowest average population was found in plants aged 49 HST, namely 1 individual/clump. While the highest brown planthopper population was found at 77 HST, namely 10 individuals/clump, for the lowest population average at 63 HST, namely 4 individuals/clump. Populations of stem borer and brown planthopper in fact preferred rice variety IR14 with the highest population, while rice variety IR18 had the lowest population.

**Keywords:** *Nilaparvata lugens*, population, rice varieties, *Scirpophaga innotata*.