SUSCEPTIBILITY OF UPLAND AND LOWLAND RICE VARIETIES TO THE INFESTATION OF RICE WEEVIL, *SITOPHILUS ORYZAE* (L) (COLEOPTERA: CURCULIONIDAE)

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ABSTRACT

This experiment was conducted under laboratory conditions of \(28\pm2\)°C and \(69\pm5\)% relative humidity to assess the level of susceptibility of 12 Upland and Lowland rice varieties to rice weevils, *Sitophilus oryzae* infestation. The experiment was set up in a randomized complete block design with four replications. Significant differences (p < 0.05) were established in antixenosis, seed coat thickness, mortality, weighs of seeds, and total weight loss used to determine the susceptibility of the twelve rice varieties to the weevils’ infestation. The pair of seed coat thickness and antixenosis had greatest effects in four Upland and four Lowland rice varieties; next in terms of impacts by the weevils was the pair of seed coat thickness and total weight loss whose impacts were on three Upland and three Lowland rice varieties respectively. The remaining pairs of seed characters recorded lesser impacts on susceptibility of the rice varieties to weevil infestation. It is very evident from this work that susceptibility of the rice varieties to infestation by the *Sitophilus oryzae* is dependent on a combination of many factors and not on a single factor. It can therefore be deduced that resistant varieties can be incorporated in the management of stored product insects.

KEYWORDS: Upland, Lowland, *Sitophilus oryzae*