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# EFFECT OF RICE VARIETY ON REPRODUCTIVE SUCCESS AND GRAIN CONSUMPTION OF MAIZE WEEVILS, *Sitophilus zeamais* (COLEOPTERA: CURCULIONIDAE): A PRELIMINARY STUDY

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*Sitophilus zeamais* (Motschulsky, 1855), commonly known as the maize weevil, is a destructive pest that frequently occurs in stored grains, including rice. The substrate variety can affect the reproductive success and population dynamics of these pests. The aim of this study was to investigate the effect of rice variety on the reproductive success of *S. zeamais* and to evaluate the rate of consumption of rice by *S. zeamais*. The eleven rice varieties in Sri Lanka, including four organic and seven non-organic, were used. Three pairs of newly emerged *S. zeamais* were introduced into 20 g of disinfected rice of each variety per replicate (3 replicates per rice variety) and observed for one month. Except for "Suwandal" (9 individuals), the total number of weevils in organic rice was relatively high, with an average of 72, 53, and 18 from "Kuruluthuda", "Pachchaperumal", and "Maavi", respectively. The highest average weight loss of organic grains was observed in "Kuruluthuda" (4.64%). Regardless of the progeny size, the weight loss in "Pachchaperumal" and "Maavi" was almost similar (~ 2.5%). The results revealed that the reproductive success of *S. zeamais* was low in non-organic varieties compared to organic ($p$ = 0.019), except "Samba", which showed a considerable population after one month ($n$ = 9 weevils) with 0.36% weight loss. The total number of weevils observed in "Red-raw rice", "White-basmati", and "Naadu" were 7, 7, and 6, respectively. No population increase was reported in "Red-basmati", "Keerisamba", and "White-raw rice". Except for Samba, a non-considerable grain weight increase was observed in "White-basmati" (2.27%) and "White-raw rice" (1.34%), suggesting that the weight increase was due to the eggs laid by the introduced weevils. The study suggested that the organic rice varieties are more vulnerable to *S. zeamais* attacks, and chemicals used for storing grains delay the reproduction of *S. zeamais*.

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