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Damage of rice weevil, *Sitophilus oryzae* (L) (Coleoptera : Curculionidae) on stored indigenous rough and milled rice varieties.

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Rice is the staple food in Sri Lanka. It is estimated that more than 6% of the harvested paddy is lost due to the damage caused by stored grain pests. Among these, the rice weevil, *Sitophilus oryzae* (L) is the most destructive insect pest of stored rough and milled rice. Although the new trend is to grow indigenous rice varieties, the traditional rice farmers who grow these varieties face serious problems in strong rough and milled indigenous rice. The present study was carried out to find out resistant and susceptible rough and milled stored rice varieties to the rice weevil *S. oryzae* under laboratory conditions. Further, density of pest and non pest groups associated with selected indigenous rice cultivars was also investigated under the field condition. Damage caused by *S. oryzae* on six different indigenous rough rice varieties i.e. Ratdal, Kuruluthuda, Kalu heenati, Hatada vee, Dahanala and Ma vee and four different indigenous milled rice types i.e. Ratdal, Kuruluthuda, Kalu heenati and Ma vee were assessed under laboratory conditions and the density of insect pest groups and non insect pest groups was studied under the field conditions during the period of February 2008 - October 2008. Basic information was collected from a questionnaire, through discussions with relevant officials and field observations. Damage of *S. oryzae* on six indigenous rough rice varieties and a hybrid rice variety were evaluated, to find out host resistant and host susceptible indigenous rice varieties. It was evident that there was a significant difference between the damage found among indigenous rice varieties ($P < 0.001$) and this study also showed that there was a significant difference between adult mortality in different rough rice varieties ($P < 0.001$) tested. Damage done by *S. oryzae* on four indigenous milled rice types and a hybrid rice type was also evaluated in the study. It was evident that there was a significant difference between emergence of adults in indigenous rice types ($P < 0.001$). Results also indicated that there was no significance difference of damage found in indigenous milled rice varieties. Five indigenous rice varieties and one hybrid variety (Kota vee) were used in the field experiment. Results indicated that there were significant difference between mean percentage insects, in vegetative phase of the indigenous rice varieties ($P < 0.005$) and ripening phase in indigenous rice varieties ($P < 0.05$). Kuruluthuda was identified as partially resistant to Rice weevil (*S. oryzae*) compared to hybrid rough rice variety.