

B-84 : Efficacy of four selected botanicals and actellic on the mortality of *Sitophilus oryzae* (L)

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Sitophilus oryzae is a most destructive pest of rice during storage. Control of this pest mainly relies on insecticides. This causes many problems including health hazards. Hence a study was conducted to find out the better form of rice storage and to evaluate the efficacy of botanicals such as *Ocimum* leaf powder, *Eucalyptus* leaf powder, lakada leaf, flower bud powder and actellic on *S. oryzae*.

This study showed that *S. oryzae* significantly preferred red broken rice over white broken rice ($p > 0.0001$). Significant weight losses due to infestation were observed in all the rice varieties, but the degree of preference and weight loss were remarkably high in red broken rice. Overall weight losses in red and white rice were 61.3% and 43.3% respectively. Red broken rice was significantly preferred by *S. oryzae* to unpolished and polished rice.

All botanicals used in this study substantially reduced the pest population over control. This indicates that all these botanicals are effective protectants for stored grains. Among the botanicals tested in this study *Ocimum* leaves powder was found to be very effective in reducing *S. oryzae*. This botanical may be recommended as an alternative to chemicals, to prevent rice weevil infestation in stores.