

## The Effect of Four Local Plant Extract on the Control of Rice Weevil, *Sitophilus oryzae* L.

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**Abstract :** Four local species (*Allium sativum*, *Capsicum annum*, *Anethum graveolens*, and *Ocimum basilicum*) were evaluated in the laboratory of Biolog Department, College of Education, for their ability to protect stored rice from the infection by weevil *Sitophilus oryzae*. Aqueous extracts of the plant species were applied as direct admixture of three concentrations levels of 1%, 2.5%, and 5% (W/V) to assess for mortality, adult emergence, and repellency and weight losses. The results showed that *Allium sativum* extracts was the most effective as it gave the highest mortality (90%) at 5% concentration followed by *Capsicum annum* (80%) on the 4th day post treatment, the result showed that the plant extract of different concentrations exhibited different level of reduction in adult emergence and different repellency of adults of *Sitophilus oryzae*. *Allium sativum* recorded the lowest mean number of adult emergence (8) followed by *Capsicum annum* (10) at 5% concentration, while *Capsicum annum* was found to be revealed complete repellent agent (100%) repellency on the 6th hours against *Sitophilus oryzae* followed by *Allium sativum* and *Anethum graveolens* (81.8%). There was a significant ( $P>0.05$ ) reduction in the weight loss by the weevils with less damaged recorded on grain treated with *Allium sativum* and *Capsicum annum* (1.6%) and (2.3%) respectively.

**Keywords :** plant extraction, rice, protectant, pest

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