

Evaluation of some indigenous plant extract for the management of *Sitophilus oryzae* L. Coleoptera: Curculionidae

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ABSTRACT:

Store products are badly hampered by some notorious stored grain pests, *Sitophilus oryzae* L. (Coleoptera: Curculionidae) is one of the devastating pests of stored products. It is a primary pest which causes brutal qualitative and quantitative losses. Present study was performed to check the repellent effect of different ethanolic plant extracts against *S. oryzae* under lab conditions. For this purpose, common plants like Bukain (*Melia Azedarach*), Guava (*Psidium guajava*), Eucalyptus (*Eucalyptus camaldulensis*), Jaman (*Eugenia jambulana*) and Citrus (*Citrus reticulata*) were investigated. Three concentrations viz, 25%, 50% and 75% were used with three replications for each treatment. Data was taken after 1, 2 and 3 hours after application. Filter paper bioassay method was used to check the repellency. Results revealed that repellent effect was totally dose dependent, higher the concentration greater was the repellency. Results indicated that Guava was the most repellent while Bukain was least repellent to *S. oryzae* at all concentrations and time intervals. Moderate repellency was also observed in other examined plant extracts. The findings of this study were that all these botanicals were proved effective in repelling pest; it was due to presence of some bioactive chemicals in them. It is concluded that for a secure, cheap, reliable, ecofriendly and sustainable control program these plant extracts should be accommodated and compensated.

Keywords:

Extract, Indigenous plant, Management, *Sitophilus oryzae*.