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SCREENING THE INSECTICIDAL AND REPELLENT ACTIVITIES OF SELECTED BOTANICAL EXTRACTS AGAINST SHORT-HORNED GRASSHOPPER (*Oxya hyla hyla)*

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Abstract

Short-horned grasshopper (*Oxya hyla hyla)* is a most important polyphagous insect pest causing severe damage to crops. Pest control with synthetic insecticides is dangerous. Botanical insecticides are natural chemicals extracted from plants with insecticidal properties and used as an excellent alternative to synthetic pesticides. The present study was performed the insecticidal and repellent activities of methanolic extracts of leaves of *Calotropis gigantea, Syzygium aromaticum*, *Annona muricata, Datura metal* and *Eucalyptus globulus* at different concentrations (1% and 3%). Percentage of mortality was recorded after 1, 2 and 3 days where the grasshoppers were treated with topical application method. The *Annona muricata* was recorded the higher % mortality and lower % mortality was recorded in *Calotropis gigantea* at both concentrations. The choice experiment was done for the investigation of percentage repellency. Percentage repellency was recorded for 60,120 and 180 minutes after treatment. The *Syzygium aromaticum* was recorded 100% of repellency at both concentrations.

Keywords: *mortality, repellency, short-horned grasshopper* (*Oxya hyla hyla)*