



EVALUATION OF THE INSECTICIDE ACTIVITY OF SODOM APPLE (*Calotropis procera*) AGAINST MAIZE WEEVILS (*Sitophilus zeamais*) CAUSING DAMAGE ON STORE MAIZE

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ABSTRACT

Laboratory experiment was conducted to determine the insecticidal activity of leaves and stem bark powder of Sodom apple (*Calotropis procera*) and optimum concentration for the management of maize weevil (*Sitophilus zeamais*). Actellic dust was used a positive control and untreated maize seeds serving as negative control. The experiment was laid in Completely Randomized Design (CRD) comprising of Leaves powder (1 g, 3 g and 5 g), stem bark powder (1 g 3 g and 5 g), Actellic dust and control. These were applied to 100 g healthy maize seeds and repeated three times. Contact activity of the plant products were evaluated and data collected were subjected to analysis of variance (ANOVA) and means were separated using NDMRT at 1% and 5% probability level. The results showed that the application of 5 g/100g leaves significantly ($P \leq 0.05$) caused highest mortality of adult *S. zeamais* at 24 (2.33), 48 (2.66), 72 (2.33) and 96 (2.00) hours by contact toxicity comparable to other treated seeds. Similarly, maize seeds treated with 5 g /100 g of the leaves powder significantly ($P \leq 0.05$) decreased Oviposition (3.33), Adult emergence (3.00), Percentage grain damage (3.67%), Number of exit holes (3.33) and Weight loss (1.63%). Germination of the treated seeds was not affected negatively. The 5 g of leave of *C. procera* could be recommended as suitable alternatives to chemical pesticides to be used as contact protectants against *S. zeamais* on stored maize seeds.

Keywords: Atelic dust, *Calotropis procera*, Control, Leaves, *Sitophilus zeamais*, Stem bark.