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BIOLOGICAL ACTIVITY OF *NERIUM OLEANDER* L. (APOCYNACAE) ESSENTIAL OIL ON 5TH LARVAL STAGE OF *SCHISTOCERCA GREGARIA* (FORSKÅL, 1775) (ORTHOPTERA: ACRIDIDAE)

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ABSTRACT

As part of the search of alternative or complementary methods to chemical control against locusts, we study the effect of *N. Oleander* essential oils obtained by hydro distillation of the leaves on 5th larval stage *S. gragaria* (solitary colony) under laboratory conditions. Larvae were fed with determinate cabbage leaves fragments soaked in essential oil. The results show a consumption rejection, decreased body weight and an insecticidal effect. Treated larvae have stopped to feed from the second day of treatment. A significant rate of loss weight of 38, 42% was observed at the end of tests. Cumulative mortality of the treated larvae occurred in the second day with a rate of 16.67 % to 100% on the 7th day, the lethal time 50 (LT50) calculated after adjustment of the logistic regression was of 3.66 days. These preliminary results provide a basis for refining the research on the mode of action of responsible molecules and their toxicity on beneficial insects.

KEYWORDS: Desert Locust, *Nerium oleander*, Essential Oils, Toxicity, Mortality, LT50