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Evaluation of larvicidal activity of aqueous leaf extract of *Citrus aurantifolia* (Lime) against house fly, *Musca domestica* L. (Diptera: Muscidae)

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House fly, *Musca domestica* (Linnaeus) act as a major vector of many medicinal and veterinary pathogenic organisms. Increasing biomagnification of synthetic chemical pesticides on non target organisms leads to search on ecofriendly and biodegradable pesticides obtained from plants. Previous studies have revealed that products from citrus plant parts are effective against certain insect pests. This study aimed to evaluate the effect of aqueous leaf extract of *Citrus aurantifolia* on mortality of larvae of the house fly, *Musca domestica,* as an effective and eco-friendly larvicide. Five grams of pork meat was soaked for one minute in 0.002 g/ml, 0.001 g/ml, 0.02 g/ml, 0.03 g/ml and 0.04 g/ml of freshly prepared aqueous citrus leaf extracts or 50 ml distilled water (control). Subsequently, samples were transferred to separate watch glasses and placed within the six plastic bottles (500ml) separately. Fifteen numbers of third instar larvae from laboratory culture was introduced into each bottle and covered tightly witha muslin cloth.Number of dead larvae was counted after 24hrs and 48 hrs of treatment.The LD50 toxicity was determined based on mortality data at 24 hrs and 48 hrs assessmentsusing statistical package Minitab.Five replicates were carried along with the control under laboratory conditions at temperature 26±2°C and 65-75% relative humidity.It was found that percentage mortality ranged between 17% - 52% and 32% - 69% after 24 hrs and 48 hrs of exposure respectively. LD_{50} of the aqueous leaf extract of *C. aurantifolia*against third instar larvae of *M. domestica was* 0.0196 g/ml for 24 hrs and 0.034 g/ml for 48 hrs of treatment. From this study it could be concluded that the aqueous leaf extractfrom *C.aurantifoila* at 0.02g/ml have substantial capability to kill the larvae of house fly and hence aqueous leaf extract could be usedas a potential natural larvicide.

Keywords: Aqueous leaf extract, House fly, *Musca domestica,* larvicide, *Citrus aurantifolia*

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