LARVICIDAL ACTIVITY OF CALAMANSI (Citrus microcarpa) LEAF EXTRACT AGAINST Aedes aegypti

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ABSTRACT

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The study was conducted to determine the larvicidal activity of calamansi (Citrus microcarpa) leaf extract against Aedes aegypti. A total of four hundred fifty (450) third instar Aedes aegypti larvae were exposed to 25, 50, 75 and 100% concentrations of calamansi leaf extract. One hundred ml distilled water added with 1 ml ethanol served as the negative control while finely powdered black pepper was utilized as the positive control. The number of dead larvae was counted at 1, 3, 6 and 9 hours post exposure. Mortalities were computed, tabulated, analyzed and compared using Analysis of Variance (ANOVA).

Results revealed that exposure with 25, 50, 75 and 100% concentration of calamansi leaf extract were effective in killing *A. aegypti* larvae. The efficacy of different concentrations of calamansi leaf extract was the same as that of the percent mortality. All the concentration provided 100% efficacy but in different exposure time, with 100% concentration effectively killing 100% *A. aegypti* larvae at the shortest time. It can be noted that the higher the calamansi leaf extract concentration, the faster it kills all larvae; the longer exposure time the lower the concentration needed to kill all larvae. In addition, the result on the study of lethal concentration revealed that the longer the exposure time, the lower the concentration needed to kill 50 and 90% of the larval population.

This may indicate that calamansi leaf extract is a promising larvicidal agent against Aedes aegypti.

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