

**THE EFFICACY OF ESSENTIAL OIL EXTRACT FROM POMELO (*Citrus maxima*)
PEEL AS MOSQUITO REPELLENT IN NEW ZEALAND ALBINO RABBITS**

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ABSTRACT

Pomelo (*Citrus maxima*) has a major active constituent, Limonene; it occurs naturally in citrus fruits. In this study, the researchers extracted essential oil from Pomelo (*Citrus maxima*) peel and used the water distillation method. The researchers formulated it into two concentrations, pure 100% essential oil and 75% essential oil diluted in 25% olive oil. Olive oil is highly compatible with the acidity of the skin; it is rich in squalene, phytostero, and tocopherol. Mosquito larvae for the repellency testing were collected from stagnant waters and they were put into different containers provided with a mosquito net or screen bonded on top, where it was left to develop into adult mosquitoes. New Zealand Albino rabbits were used as test subjects for this research, where the rabbit's skin was shaved and divided into four (4) quadrants and were placed in separate cages together with the trapped adult mosquitoes. Quadrant A (100% Pomelo (*Citrus maxima*) essential oil), Quadrant B (Positive control Pure Citronella essential oil), Quadrant C (75% Pomelo (*Citrus maxima*) essential oil), and Quadrant D (Negative control Mineral oil) were applied on the rabbit's shaved skin. The rabbits were then exposed to mosquitoes by removing the mosquito net bonded using a thread for fourteen (14) hours and was checked every two (2) hours for mosquito bites. The gathered data and results only one (1) to zero (0) mosquito landings and bites on the tested area.