

**THE EFFICACY OF MOSQUITO REPELLENT LOTION FROM POMELO (*CITRUS  
MAXIMA*) PEEL EXTRACT ON NEW ZEALAND ALBINO RABBIT**

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**ABSTRACT**

Mosquito-borne diseases are spread by the bite of an infected mosquito. Diseases that are spread people by mosquitoes include Chikungunya, Malaria, and Dengue. One way to control mosquito bites is by using mosquito repellent from a natural source. Pomelo (*Citrus maxima*) has major active constituent limonene, occurs naturally in citrus fruits. In this study, the researchers extracted essential oil from Pomelo (*Citrus maxima*) peel and used a water-steam distillation method. The formulation and 50% lotion formulation. Pomelo peel oils have that specific aroma that can be used: as a mosquito lotion repellent. Triethanolamine is a pH stabilizer/neutralizer for the skin and oleic acid serves as a moisturizer when rubbed to the skin. Iodine test; was used for testing the presence of limonene and other unsaturated compounds in the clear Pomelo (*Citrus maxima*) peel extracted by water-steam distillation. Mosquito larvae for the repellency testing were collected from stagnant waters. They were put into different containers provided with a mosquito net bonded on top, where it was left to develop into an adult mosquito. The adult mosquito, placed in the container were placed inside the cage where repellency testing will be performed. New Zealand white rabbits were used as a test subject for this study. The rabbit's skin is shaved and divided into four (4) quadrants and were placed in separate cages together with the trapped adult mosquitoes. Quadrant A (Positive Control Off lotion), Quadrant B

(Negative Control Lotion base), Quadrant C (75% concentration Lotion formulation), Quadrant D (50% concentration Lotion formulation) were applied on the rabbits shaved skin. The rabbits were then exposed to mosquitoes by removing the mosquito net bonded using a thread for fourteen hours and was check every two hours (2) for mosquito bites. The gathered data and results showed only one (1) to two (2) mosquito landings and bites on the tested area.