

**THE EFFICACY OF MOSQUITO REPELLANT SPRAY FROM POMELO PEEL  
EXTRACT ON NEW ZEALAND ALBINO RABBITS (*Oryctolagus cuniculus*)**

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**ABSTRACT**

Pomelo (*Citrus maxima*) shows a great mosquito repellent activity due to its major active constituent, Limonene. In this study, the researchers formulate mosquito repellent spray from pomelo (*Citrus maxima*) peel extract in two concentrations (100% and 75%). Water distillation was used in extracting Pomelo (*Citrus maxima*) peel oil. 100% pomelo (*Citrus maxima*) peel extract mosquito repellent spray contains pure essential oil. Coconut oil was used to dilute 75% pomelo (*Citrus maxima*) peel extract mosquito repellent spray formulation. Mosquito larvae for the repellency testing were collected from stagnant waters and were put in different containers provided with a small screen bond on top, where it was left to develop into pupae and become adult mosquitoes. The test subjects used in the repellency testing were rabbits, where the rabbit's skin was shaved and divided into four (4) quadrants. The formulated concentration, together with the positive control (no touch mosquito repellent spray) and negative control (mineral oil) were applied on different quadrants on the rabbit's shaved skin. The rabbits were then exposed to mosquitoes for fourteen (14) hours and were checked every 2 hours for mosquito bites. The gathered data and results showed that there were only one to none mosquito landings and mosquito bites on the tested area. The data analyzed and compared using ANOVA showed a significant difference existed in the repellency activities of 100% formulation and 75% formulation of pomelo peel spray to Positive control (No touch mosquito repellent spray) and Negative control (Mineral oil).