ACUTE DERMAL TOXICITY OF POMELO (Citrus maxima) PEEL LOTION AS MOSQUITO REPELLENT ON RABBITS

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ABSTRACT

The study was designed to determine the acute dermal toxicity of Pomelo (Citrus maxima) peel lotion as mosquito repellent on rabbits. Pomelo (Citrus maxima) peel essential oil showed a high repellency effect with an increase concentration. The study used formulated lotion of the extracted essential oil of Pomelo (Citrus maxima) peel and was applied on the rabbits' shaved skins for the determination of the acute dermal toxicity. The experiment was carried out using 2 males and 2 females albino white rabbits. The tests used were patch test and scratch test to determine the formation of erythema and edema of Pomelo (Citrus maxima) peel mosquito repellent lotion on rabbits using skin reaction scores and will be interpreted using Primary Irritation Index (PII). As for the results, since the lotion contained extracts of Pomelo (Citrus maxima) peel, it exhibits no irritation for both male and female rabbits. Therefore, formulated Pomelo (Citrus maxima) peel mosquito repellent lotion containing 50% and 75% have potential to the use as a safe alternative mosquito repellent.