Market Acceptability of Pomelo (Citrus maxima) Peel Extracts as Mosquito Repellent Gel Formulation in Highly Endemic Area (Santa Barbara, Iloilo)

A Thesis

Presented to

The College of Pharmacy

Central Philippine University

Jaro, Iloilo City

In Partial Fulfillment

of the Requirements for the Degree

Bachelor of Science in Pharmacy

By

GAURAN, NETTHEA PEARL

GIMENO, CHYV VALERIE

JALBUENA, CHRISTINE MARIE

LIMBAGA, ELIJAH

MADERADA, LIBERTY

MAGLUYAN, KIMBERLY

MALTO, JOMENIFER

MARCH 2020

MARKET ACCEPTABILITY OF POMELO *(Citrus maxima)* PEEL EXTRACT AS MOSQUITO REPELLENT GEL FORMULATIONS IN HIGHLY ENDEMIC AREA (SANTA BARBARA, ILOILO)

Gauran, Netthea Pearl, Gimeno, Chyv Valerie, Jalbuena, Christine Marie, Limbaga, Elijah, Maderada, Liberty, Magluyan, Kimberly, Malto, Jomenifer

ABSTRACT

The Philippines is facing a surge in dengue cases, with over 100,000 dengue cases reported by the Department of Health from January 1 to June 29, 2019. An 85% increase in cases from the same period last year, with more than 450 deaths reported. The provinces of the Western Visayas region declared an outbreak, with many municipalities seeking a calamity state to access emergency funding to mobilize additional resources. Iloilo, a province of Santa Barbara has 758 positive cases of dengue This includes three deaths. The three reported deaths came from Brgy. Inangayan, Brgy. Balabag and Brgy. Bolong Oste. Therefore, there is an urgent need to develop mosquito repellents to combat the increasing number of dengue cases among the Barangay. And one of the mosquito repellents is Pomelo peel extract (*Citrus grandi*). Determining the market acceptability of mosquito repellent in the formulated Pomelo peel gel extracts is the main goal of the study. Specifically, it aims to determine the demographic profile of the respondents in terms of age groups, educational attainment, monthly income, and family history of dengue fever. A Multi-Stage Random Sampling technique was used in selecting the participants in this study. Using the Likert-7-point scale survey questionnaire, these will be described by observation of two formulation. One formulation contains 50% pomelo peel extract, and another formulation contain 75%. The study has found out that Pomelo (*Citrus*

and another formulation contain 75%. The study has found out that Pomelo (*Citrus grandis*) Peel gel extract has high market acceptability for formulations in both concentration and repellent properties for the Aedes mosquito. The result of the present study would provide knowledge and information about Pomelo peel gel as a mosquito repellent.