

**PRODUCTION OF MOSQUITO REPELLENT LOTION FROM
OREGANO (*Origanum vulgare*) CRUDE EXTRACT**

A Research Study
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**MENDOZA, BEA VALERIE A.
PANGANIBAN, KAE ANN MARY N.
SOLOMON, JHAIRON TREB F.**

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ABSTRACT

MENDOZA, BEA VALERIE A., PANGANIBAN, KAE ANN MARY N. and SOLOMON, JHAIRON TREB F. Production of Mosquito Repellent Lotion from Oregano (*Origanum vulgare*) Crude Extract. Research Study. Science High School, College of Education, Cavite State University, Indang, Cavite. April 2014. Adviser: Dr. Ammie P. Ferrer.

This study was conducted from November 2013 to January 2014 at the Research Center of Cavite State University. Specifically, the study aimed to: 1. determine the percentage yield of the crude extract from oregano; 2. identify the sensory properties of the produced lotion using the extracted essential oil from oregano in terms of odor and viscosity; 3. identify the level of acceptability of the produced lotion using the crude extract from oregano; 4. determine which treatment from the crude extract of oregano will make the best mosquito repellent; 5. determine which treatment from the crude extract of oregano will be the least acidic; and 6. determine the cost of production of the produced lotion from crude extract of oregano.

Steam distillation was used to extract the oregano. There were three treatments in the formation of the lotion containing oregano extracts only differing in the amount of the extract content. The different treatments used were the following: T₁ - 20% concentration of oregano extract; T₂ - 60% concentration of oregano extract; and T₃ - 100 % of oregano extract. Different mixtures of the components were prepared in making the lotion: 1.) 5 mL of oregano extract, 20 mL of olive oil, 10 mL of coconut oil, 6 g of beeswax; 2.) 15 mL of oregano extract, 20 mL of olive oil, 10 mL of coconut oil, 6 g of beeswax; and 3.) 25 mL of oregano extract, 20 mL of olive oil, 10 mL of coconut oil, 6 g of beeswax.

Data gathered were analyzed by getting the percentage (%) and means of the respondents. Decoded scores were then subjected to One Way Analysis of Variance (ANOVA) to determine if the treatments cause significant differences in odor, viscosity and general acceptability. Further analysis was done through Duncan Multiple Range Test to compare means among the treatments.

T₁ (20% concentration of oregano crude extract) got the highest mean in terms of odor and T₃ (100% concentration of oregano crude extract) got the highest mean in terms of viscosity. T₂ (60% concentration of oregano crude extract) got the highest mean in terms of general acceptability. In terms of the mosquito repellent property, T₃ (100% concentration of oregano crude extract) was the most effective. The pH level of the lotion treatments were 5.9. This means that the pH level of the lotion treatments were in the range of the optimum acidity of a standard lotion. The costs of production of all treatments were 261.40 pesos. This includes all the materials like olive oil, coconut oil, beeswax, lotion container and oregano leaves. Each treatment cost 87.13 pesos.

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