COMPARATIVE STUDY ON THE MOLLUSCICIDAL EFFECTS OF THE LEAF EXTRACT OF *Ageratum conyzoides* Linn. (GOAT WEED) AND *Citrus microcarpa* (CALAMANSI) ON *Pomacea canaliculata* Lam. (GOLDEN APPLE SNAIL)

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ABSTRACT

Molluscicides are chemical preparations used to control mollusk such as motts, slugs and snails. This give rise to the development of the so-called Bio-Pesticides which are derived from natural toxins with specific properties against mollusk specifically the snails which have low mammalian toxicity and high biodegradability. This research was conducted to know the effects of the different concentrations of Calamansi and Goat weed leaf extract on the mortality of Golden apple snails. Test organism were exposed to different concentrations of Calamansi and Goat weed leaf extract namely T_0 = positive control (Slug out molluscide), T_1 = 25% concentration, T_2 = 50% concentration and T_3 = 75% concentration. At each leaf concentration, mortality rate was recorded three days after the application of the leaf extract. Two-way ANOVA was the statistical tool used. Results showed that 75% concentration of Goat weed leaf extract had the highest mortality rate of 48.3%, followed by the 50% concentration with a mortality rate of 21.67, and lastly by the 25% concentration with a mortality rate of 21.67%. Calamansi leaf extract, on the other hand, had the same mortality rate of 46.67% with 75% and 50% leaf concentrations, and 38.3% mortality rate for the 25% concentration. The positive control (Slug out) had 100% mortality rate within the duration of the experimental procedure. The study determined that as the level of concentration of the leaf extract increases and the duration of exposure of GAS to the leaf extract increases, the mortality rate increases. Positive reaction to the treatment includes shrinkage of the snail and discoloration of the shell. For further improvement of the study, the researchers recommend the use of other plants whether of the same family or not and test for molluscicidal property, test other forms of application like spraying it directly on the test organism, and lastly, come up with other forms of preparation like bar form to be molluscicide.

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