# EXPERIMENTAL STUDY FOR TESTING THE EFFICIENCY OF ANT REPELLING ACTIVITY OF BANANA LEAF (*Musa acunimata*)

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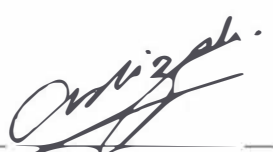

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(Nur Arina binti Asmawi)

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# ABSTRACT


## EXPERIMENTAL STUDY FOR TESTING THE EFFICIENCY OF ANT REPELLING ACTIVITY OF BANANA LEAF (*Musa acuminata*)

When identifying common problems related to leaving food and sweet drinks, the disturbance of fire ants seems to be concerned since they will be swarming the food and the drinks. While for the banana leaf, many studies related to banana plant stated that after harvesting the crop, mature banana leaf is considered as agricultural waste and just been burned that can pollute the air. Moreover, current commercialized industrial repellent contains N, N-diethyl-m-toluamide (DEET) or alcohol that could give side effect to the user because of DEET and alcohol poisoning. This research is done with hope to produce a safer repellent product to deter the swarming ants and reducing the wastage of the banana leaves that will be beneficial to the households. The objectives of this study are to examine the potential application of banana leaf extraction as an ant repellent and to determine which banana leaf concentration is the most effective as an ant repellent. From the result it shows that 100% concentration of banana leaf extraction could repel the greatest number of ants (*Solenopsis invicta*) based on the number of ants avoiding the extraction in the petri dish where there are average of 49 ants outside the petri dish. Meanwhile, the least effective concentration of the banana leaf extraction is 25% concentration since it has the least number of ants which average is 32 ants outside the petri dish contained the cotton pad with the extractions. In conclusion, this research shows that banana (*Musa acuminata*) leaf extractions have the potential to be used as an ant repellent and the most effective concentrations to be used as the ant repellent are the 100% concentration of the banana leaf extractions.