

**THE EVALUATION OF *Cymbopogon nardus* (CITRONELLA GRASS)
AND *Piper betle* (BETEL LEAF) AS BIOPESTICIDES ON *Bactrocera
carambolae* LARVAE**

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ABSTRACT

THE EVALUATION OF *Cymbopogon nardus* (CITRONELLA GRASS) AND *Piper betle* (BETEL LEAF) AS BIOPESTICIDES ON *Bactrocera carambolae* LARVA

Malaysia is the main starfruit exporter for Hong Kong, Europe and Singapore market. Hence, starfruit contributes financially to Malaysian economic. But due to the presence of its pests, *Bactrocera carambolae*, this species have created havoc in horticulture industries which lead to financial loss. This study focuses on the need to evaluate the potential of herbs species which are citronella grass and betel leaf in functioning as biopesticides for *B.carambolae* larvae. Generally, biopesticides are manufactured and used as a swap for chemical pesticides by most of farmers in protecting their crops. The techniques used in this study include sample collections, preparations of crudes and treatments on larvae of *B.carambolae*. The times taken for the larvae to disperse from circle 1 to circle 3 when exposed to different types of biopesticides were recorded. The data then analyzed by using one-way ANOVA. From the results recorded, there is no significant value recorded for all the treatments done on the larvae.