THE EFFECT OF ADDITIONING FRUIT JUICE FERMENTATION ON BLACK TEA TREE ESSENTIAL OIL (*Melaleuca bracteata*) AS A FRUIT FLY TRAP ON SNAKEFRUIT

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ABSTRACT

Snakefruit (*Salacca zalacca*) is one of the commodities that are widely cultivated, but the level of productivity has decreased due to fruit fly attacks. Fruit fly control can be done using traps that use attractants containing methyl eugenol such as fragrant leaf essential oil or traps with a strong fruit aroma and containing protein such as fermented fruit juice (snakefruit fermentation, pineapple fermentation and mango fermentation). This research aims to test the effect of adding fermented fruit juice to fruit fly traps containing fragrant leaf essential oil and to identify the types of fruit flies caught in fruit fly traps containing fragrant leaf essential oil plus fermented fruit juice. The research was carried out from March 2024 to May 2024 using a Completely Randomized Design (CRD) with 8 treatments including: black tea tree oil 2 ml, fermented salak juice 2 ml, fermented pineapple juice 2 ml, fermented mango juice 2 ml, black tea tree oil + fermented salak fruit (1 ml + 1 ml), black tea tree oil + fermented pineapple fruit (1 ml + 1 ml), black tea tree oil + fermented mango fruit (1 ml + 1 ml), and control without attractant. Each treatment had 2 experimental units and was repeated as many as 3 replicates. The data obtained were analyzed using Analysis of Variance (ANOVA) at the $\alpha = 5\%$ level and then further tested with LSD at the $\alpha = 5\%$ level. The results showed that the treatment of adding 1 mL mango fermentation to traps containing 1 mL black tea tree oil was able to capture fruit flies on salak plants and fruit flies of the genus Bactrocera and Drosophila could be caught with black tea tree oil traps added to fermented fruit juice.

Keywords: *Attractants, Fermented juice, Black tea tree essential oil, Snakefruit, Pineapple, Mango*