NAPOFITH BIOPESTISIDE EFFECTIVENESS TEST WITH DIFFERENT FEEDING METHODS ON THE SUGARCANE *Lepidiota stigma* F. MORTALITY

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ABSTRACT

Lepidiota stigma F. *are one of the main pests that attack sugarcane plants, grubs can cause a decrease in sugarcane production. There are several ways to control sugarcane grubs, one of which is by using Napofith biopesticide. This study aims to determine the effectiveness of Napofith biopesticide with different feeding methods on mortality and feeding behavior of sugarcane grubs. This study was conducted from June to July 2025 at the Plant Protection Laboratory of the Department of Agricultural Production, Jember State Polytechnic. This study used a Non-Factorial Randomized Block Design (RBD), consisting of 4 treatments with 6 replications, namely control, Napofith 2.5% + milled rice husk feed, Napofith 2.5% + rice bran feed, and Napofith 2.5% + milled corn cob feed. The experimental data were analyzed using ANOVA and further tests at a 5% LSD level, while to determine LT50 using probit analysis. Observation parameters included mortality, LT50 (Last Life Expectancy), feeding behavior, larval weight changes, and physical changes in the sugarcane grubs. The results showed that the biopesticide Napofith, combined with different feeding methods, was effective and significantly affected the mortality of the sugarcane grubs (Lepidiota stigma F.), with the fastest LT50 value of 116.77 hours and a feed consumption of 6.119 grams in the 2.5% Napofith + rice bran treatment.*

Keywords: Sugarcane, *Lepidiota stigma* F., Napofith, Mortality