

**THE EFFECTIVENESS OF A BOTANICAL INSECTICIDE FROM
GADUNG TUBER (*Dioscorea Hispida* Dennst.) WITH THE
ADDITION OF SURFACTANTS ON MORTALITY AND
FEEDING BEHAVIOR OF TOBACCO CATERPILLARS**

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ABSTRACT

*Armyworm pest (*Spodoptera litura* F.) is one of the main pests that attack tobacco plants, armyworm pests can cause fluctuations in tobacco production. There are several ways to control armyworm pests, one of which is by using a botanical insecticide for gadung tubers with the addition of surfactants. The purpose of this study was to determine the effectiveness of botanical insecticides for gadung tubers with the addition of surfactants on mortality and feeding behavior of armyworms. This study was conducted in July 2025 at the Plant Protection Laboratory, Department of Agricultural Production, Jember State Polytechnic. This study used a Non-Factorial Randomized Block Design (RBD), consisting of 5 treatments with 5 replications, namely control, 5% Concentration, 5% Concentration + 0.3% surfactant, 10% Concentration and 10% Concentration + 0.3% surfactant. The experimental data were analyzed using anova and further tests with a 5% LSD level, while to determine LT_{50} using probit analysis. Observation parameters were mortality, LT_{50} , feeding behavior and physical changes of armyworms. The results showed that the plant insecticide of gadung tubers with the addition of surfactants was effective and had a very significant effect on the mortality of armyworm pests (*S. litura* F.) with the fastest LT_{50} value of 104.12 hours and the lowest feed consumption of 0.183 grams in the 10% concentration + 0.3% surfactant treatment.*

*Keywords: armyworms (*S. litura* F.), gadung tubers, surfactants, mortality.*