

**THE EFFECT OF MAHOGANY SEED EXTRACT (*Swietenia mahagoni* L.)  
ON MORTALITY AND FEEDING BEHAVIOR OF THE GRAYAK  
CATERPILLAR (*Spodoptera litura* F.)  
PEST IN TOBACCO PLANTS**

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**ABSTRACT**

Armyworm pests (*Spodoptera litura* F.) are 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 mahogany seed botanical insecticides. The purpose of this study was to determine the effect of mahogany seed extract on mortality and feeding behavior of armyworms in tobacco plants. This study was conducted in May – July 2025 at the Plant Protection Laboratory, Department of Agricultural Production, Jember State Polytechnic. This study used a Non-Factorial Randomized Block Design (RAK), consisting of 4 treatments with 6 replications, namely control, 2% mahogany seed extract, 4% mahogany seed extract, and 6% mahogany seed extract leaf extract. The experimental data were analyzed using anova and continued with a further BNT test at 5% level, while to determine LT50, probit analysis was used. The observation parameters were mortality, LT50, feeding behavior, and physical changes in armyworms. The results of the study showed that the mahogany seed botanical insecticide had a very significant effect on the mortality of armyworm pests with the fastest LT50 value of 145 hours at a concentration of 6% mahogany seed extract.

Keywords: mahogany seeds, garayak caterpillar (*S. litura* F.), mortality.