

**TESTING THE EFFICACY OF VEGETABLE INSECTICIDES BASED  
ON GADUNG TUB AND SOURSOP LEAF ON TOBACCO LEAF  
CALCULAR MORTALITY USING DIFFERENT  
APPLICATION METHODS  
(*Spodoptera litura* F.)**

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**ABSTRACT**

Armyworm (*Spodoptera litura* F.) is the main pest that mostly attacks the leaves and is always found throughout the tobacco growing season. There are several ways to control pests, one of which is with vegetable pesticides, namely gadung tubers and soursop leaves. This research was conducted in March - April 2022 at the Jember State Polytechnic Plant Protection Laboratory. The purpose of this study was to determine the efficacy of the application of vegetable insecticides made from gadung tuber and soursop leaves on the mortality of tobacco leaf caterpillars (*Spodoptera litura* F.). The test larvae used in the study were test larvae (*Spodoptera litura* F.) instar 3. Experimental data were analyzed using ANOVA, if the results showed a significant effect then a further test of the BNJ level of 5% was carried out, while probit analysis was used to determine LT<sub>50</sub>. There are 4 parameters used, namely mortality, LT<sub>50</sub>, changes in behavior and physical changes. The study used a Factorial Randomized Block Design (RAKF), consisting of 8 treatments with 4 replications (control) + Feeding Method, Gadung root vegetable insecticide 200gram/1,2 l + Feeding method, Soursop leaf vegetable insecticide 500gram/1,5 l + Feeding method, Gadung tuber vegetable insecticide 200gram/1,2 l and soursop leaf 500gram/1,5 l +Feeding Method, (control) + Contact Method, Gadung tuber plant insecticide 200gram/1,2 l + Contact method, Soursop leaf vegetable insecticide 500gram/1,5 l + Contact method, Gadung tuber vegetable insecticide 200gram/1,2 l and leaf soursop500gram/1,5 l +Contact Method. The results showed that the plant-based insecticides of gadung tuber and soursop leaves had a very significant effect on armyworms (*St. litura* F.), the best treatment was the gadung tuber vegetable insecticide 200 gram/1,2 l. Various methods of application of gadung tuber and soursop leaves had a very significant effect on the mortality of armyworms (*St. litura* F.) the best method is contact. The interaction between gadung tuber vegetable insecticides and soursop leaves with the application method has a very significant effect on the mortality of armyworms (*St. litura* F.) with the best treatment was the gadung tuber vegetable insecticide 200 gram/1.2 l contact method, LT value50 fastest 46 hours.

Keywords : (*Spodoptera litura*F.), gadung tuber, soursop leaf, application metho