EFFECT OF KIPAHIT PLANT-BASED INSECTICIDES *(Tithonia diversifolia)* ON MORTALITY OF GRAYAK CATERPILLAR *(Spodoptera litura F.)* IN TOBACCO LEAVES *(Nicotiana tabaccum L.)*

Guided by Anni Nuraisyah, S.TP., M.Si.

Irma Mayang Sari
Plantation Cultivation Study Program
Department of Agricultural Production

ABSTRACT

Tobacco is a commodity that plays an important role in the national economy. In the cultivation of tobacco itself, obstacles were found, namely the attack of the pest Spodoptera litura F on the leaves. Control of armyworms at the farm level generally still uses insecticides derived from synthetic chemical compounds which can leave residual effects on plants and the environment. In order to minimize the use of insecticides, it is necessary to find substitute controls that are effective and safe for the environment. Botanical insecticides are made from plant extracts, namely kipahit leaves. Kipahit leaves contain alkaloids, terpenoids, saponins, tannins, and polyphenols. The death of the armyworm was due to the active ingredients contained in the kipahit leaf extract. The purpose of this study was to determine the effect of kipahit leaf vegetable insecticide on armyworm mortality and to determine the effect of kipahit leaf vegetable insecticide on the ability to eat armyworm caterpillars using a non-factorial RAK experimental design with 5 treatments and 5 replications, namely P1 (control), P2 (leaf extract). kipahit 3%), P3 (kipahit leaf extract 5%), P4 (kipahit leaf extract 7%), and P5 (kipahit leaf extract 9%). Experimental data were analyzed using ANOVA and a 5% follow-up test, if the results showed a significant effect then a 5% BNJ follow-up test was carried out, while probit analysis was used to determine LT50. There are 4 parameters used, namely mortality, LT50, ability to eat and physical changes. The results of the research conducted showed that the application of kipahit leaf vegetable insecticide in controlling the armyworm pest effectively had a very significant effect with the fastest LT50 72 hours after application to the treatment of kipahit leaf extract and had a very significant effect on the ability to eat armyworms on tobacco leaves.

Key words : Kipahit, Mortality, Eat Ability