THE EFFECTIVENESS OF VEGETABLE INSECTICIDES MADE FROM SOURSOP LEAVES AND CITRONELLA LEAVES AS CONTROL OF ARMYWORM PESTS (Spodoptera litura F.)

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ABSTRACT

Armyworm (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 pests, one of which is by using vegetable insecticides from soursop leaves and citronella leaves. This study aims to determine the effectiveness of vegetable insecticides soursop leaves and citronella leaves on mortality and to determine the effect of eating ability of armyworm (Spodoptera litura F.). This research was conducted in August-September 2022 at the Plant Protection Laboratory of the Department of Agricultural Production, State of Polytechnic Jember. This study used a non-factorial Randomized Block Design (RBD), consisting of 4 treatments with 6 replications, namely control, 20% soursop leaf extract, 20% citronella leaf extract, and a combination of 20% soursop leaf extract and 20% lemongrass leaf extract. The experimental data were analyzed using ANOVA, if the results showed a significant effect, a 5% level LSD further test was carried out, while to determine the LT₅₀ using probit analysis. There are 4 parameters used, namely mortality, LT_{50} , physical changes, and ability to eat. The results showed that the vegetable insecticides soursop leaves and citronella leaves were effective and had a very significant effect on the mortality of armyworm (S. litura F.) with the fastest LT₅₀ value of 23 hours on 20% lemongrass leaf extract treatment, and very significant effect on feeding ability at armyworm (S. litura F.), that was citronella leaf extract 20%.

Keywords : armyworm (S. litura F.), soursop leaf and citronella leaf, mortality