

**EFFICACY ORGANIC PESTICIDE of grinting weed extract (*Cynodon dactylon* L)
AGAINS *Spodoptera litura* F. ON SOYBEAN PLANTS**
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ABSTRACT

Spodoptera litura F. is one of the main pests on soybeans that can reduce production yields up to 80%. In this study, the control of *Spodoptera litura* was carried out using a vegetable pesticide extract of grinting weed (*Cynodon Dactylon* L.). This research was conducted from February 2021 to June 2021 at the Jember State Polytechnic Laboratory and cultivation on the land of Sumber Wringin Village, Sumpersari District, Jember. This research was carried out in two stages. The first stage was carried out to determine the reference concentration in the field based on the mortality test *Spodoptera litura* and insecticide efficacy. Mortality test using Completely Randomized Design (CRD) with 5 concentration treatments, namely concentrations of 0% (control), 5%, 15%, 25%, 50% and 75%. Each treatment was repeated 3 times. Insecticide efficacy is calculated using the Henderson dan Tilton formula. The concentration reference in the field uses a concentration that has an EI value of 70%, namely at a concentration of 75%. The second stage of the research was a field test by comparing 2 treatments of Grinting weed extract with 75% concentration and Deltamethrin insecticide. Observation parameters included attack intensity, number of pods, pod weight and dry seed weight. Data analyzed using SPSS 15.0 . application by testing the normality and homogeneity of the data. The conclusion in this study was that the insecticide efficacy of grinting weed extract to control of *Spodoptera litura* was 75% concentration. The intensity of attack on the two treatments showed a significant difference. The Intensity of attack insecticide treatment of grinting weed extract was 9% and The intensity of attack insecticide Deltamethrin was 7%. The yields of the two treatments were not significantly different.

Keyword : *Cynodon dactylon*, *Spodoptera litura*, *Soybean Plant*