

Application of Biological Agency *Trichoderma* Sp. Against Pest *Riptortus linearis* on Edamame Soybean

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ABSTRACT

This study aims to determine the production of Edamame Soybean (*Glycine max* L.) with the application of *Trichoderma sp* and synthetic pesticides from active ingredients *Metomil* against the intensity of *Riptortus linearis* attack on edamame soybean plants. This research was carried out in the State Polytechnic Plant Protection laboratory in Jember in January 2019 by conducting toxicity testing (LC50) on the biological agency *Trichoderma sp* to find the right concentration in controlling *Riptortus linearis* pests, this research was also conducted in Dukuh Mencek Village, Sukorambi District, Regency Jember in January to March 2019. This study uses a method of comparing two treatment fields, namely the use of biophesticide agents *Trichoderma sp* and synthetic insecticides made from *methomyl* active with 50 sample plots. This study was analyzed using SPSS 15.00. The results of this study indicate that the population of *Riptortus linearis* is significantly different. The population of *Riptortus linearis* in the *Trichoderma sp* treatment was 0.83 per plant sample and in the *Metomil* treatment was 0.93 per plant sample. The intensity of *Riptortus linearis* attacks is also significantly different. The intensity of attacks in the *Trichoderma sp* treatment was 0.71% and in the *Metomil* control treatment was 0.72%. In the parameter number of pods, the results obtained are not significantly different from the average results in the *Trichoderma sp* treatment showed an average figure of 12.32. Whereas the *Metomil* Control treatment showed 20.50 pods per plant. The yield of pods is not significant. With the average results in the treatment *Trichoderma sp* showed an average figure of 41.66. Whereas the treatment of *Metomile* Control shows the number 51.72. gram.

Keywords: *Edamame Soybean, Riptortus linearis, Trichoderma sp.*