

EFFECTIVENESS OF FUNGUS (*Metarhizium anisopliae*)
AGAINST *Nezara viridula* ON
SOYBEAN.

Supervised By: Ir. Damanhuri, MP

Muhammad Fahmi Jatmiko
Food Crop Production Technologi Study Program
Departement of Agrivultural Production

ABSTRACT

Soybean is one of the food crops which is the main staple in Indonesia. With the increasing demand for soybeans, there is a demand for increased soybean production. One of the factors of soybean production failure is pest attack. Green stink bugs (*Nezara viridula*) is one of the main pests in soybean cultivation. In its current control, the majority of farmers use synthetic insecticides in excess, which is contrary to the concept of Integrated Pest Management (IPM). So the need for Green stink bugs pest control that is more environmentally friendly and more affordable in terms of cost. The fungus *Metarhizium anisopliae* is an entomopathogenic fungus that can control Green stink bugss on soybeans. The purpose of this study was to determine the effectiveness of the fungus *Metarhizium anisopliae* against Green stink bugss on soybean plants. The research was carried out in two places, namely the Food Crops and Horticulture Protection Laboratory, Tanggul and cultivated land in Jember Regency. The implementation began in June to September 2022. Before determining the field concentration, laboratory tests must first be passed. Laboratory test concentrations were (0%), (12%), (14%), and (16%) the results obtained were field-worthy concentrations based on EI (16%). This study used a non-parametric design which compared 2 treatments, namely the fungus *Metarhizium anisopliae* with the insecticide Cypemethrin. Data analysis using Mann-Whitney Test. The results showed that there was no significant difference in the comparison of the treatment of the fungus *Metarhizium anisopliae* to the insecticide treatment Cypemethrin on crop yields which were influenced by the intensity of attack of the Green stink bugs which could be controlled.

Keywords: *Metarhizium anisopliae* fungus, Green stink bugs, Soybean.