

**Efektivitas Cendawan *Metarhizium rileyi* terhadap  
Ulat Grayak (*Spodoptera litura* F.) pada Tanaman  
Kedelai (*Glycine max* L.)**

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**ABSTRACT**

*Pest grayak caterpillar (*Spodoptera litura* F.) is a pest that can reduce soybean production, so it is necessary to control pests with one of them using boletus *Metarhizium rileyi*. This study aims to compare the effectiveness of the application of biological agents *Metarhizium rileyi* with synthetic pesticides made from active emamectin benzoate in soybean plants. This research was carried out from June 2022 to August 2022, located at the laboratory for observation of pests and diseases of food crops and horticulture (PHP TPH) embankment and land Banjar Sengon Village, Patrang District, Jember Regency. This study used a statistical test design comparing 2 plots with four concentrations of *Metarhizium rileyi* (0 ml/100 ml aquadest, 10 ml/100 ml aquadest, 15 ml/100 ml, 20 ml/100 ml), then conducted an efficacy test to obtain a concentration of 20% for field applications with observation parameter spore permeability, EI, pest population, damage intensity and dry pod weight. Data analysis using ANOVA followed by further test BNT 5%. Field observations showed that there was no real difference in each observation variable, including pest population, pest attack intensity, and dry pod weight. The use of *Metarhizium rileyi* in pest control *Spodoptera litura* .F .F can be an alternative because it is able to provide results that are not significantly different from synthetic pesticides in general field observations.*

**Keyword:** *biological, entomopatogenic fungus, emamektin benzoat, soy bean  
Metarhizium rileyi, Spodoptera litura F.*