

***Application of Biological Agent *Pseudomonas Fluorescens* to Control
Leaf Blight (*Xanthomonas oryzae*) in Rice Plants***

Supervised by: Iqbal Erdiansyah, S.P., M.P.

Puspita Diva Maharani

*Study Program Production Technology of Food Corps
Department of Agricultural Production*

ABSTRACT

Pseudomonas fluorescens has the ability to inhibit the development of leaf blight. It is hoped that the application of *Pseudomonas fluorescens* bacteria can be used as an appropriate control method so that it can inhibit the growth of pathogenic bacteria. This research was carried out from August to December 2023 in Antirogo village, Kec. Summersari Jember Regency. The experiment was designed using a nonparametric test with treatments including: P0: Control (Vegetable Pesticide), P1: Bacterial concentration (*Pseudomonas fluorescens* Biological Agent). Antagonist test results show that there is inhibition of pathogenic bacteria by antagonistic bacteria. P1 attack intensity had a significant effect on pathogen attack intensity showing a P value of $0.046 < 0.05$ with the mean attack intensity providing an increasingly significant difference compared to P0. The dry grain weight parameter for 1000 rice fields showed that the highest result was P1 at 36.65% while the lowest was P0 with an average of 30.88%.

Keywords: Pseudomonas fluorescens, Leaf Blight