

**EXPLORATION OF PATHOGEN DIVERSITY IN CIHERANG RICE
(*Oryza sativa* L. Var. Ciherang) IN KEBONSARI VILLAGE,
SUMBERSARI DISTRICT, JEMBER REGENCY**

Supervised by Trisnani Alif, S.Si., M.Sc.

Adam Rizqi Wahyudi

Study Program of Food Corp Production Technology
Departement of Agricultural Production

ABSTRACT

*Rice plants (*Oryza sativa* L.) play a crucial role in supporting national food security, as rice is consumed by 95% of Indonesia's population. Therefore, increasing rice production is essential. However, rice production faces challenges due to plant diseases, especially pathogens. Kebonsari Village, located in Summersari Subdistrict, Jember Regency, is one of the areas with high-intensity rice cultivation. This condition creates an environment conducive to the survival of pathogenic diseases. Hence, this study was conducted to explore the diversity of pathogens attacking the Ciherang rice variety in Kebonsari Village, including the diversity, severity, and incidence of plant diseases. The study was carried out in Kebonsari Village, Summersari Subdistrict, Jember Regency. Three experimental plots were used in this study: a control plot (without PGPR application), P1 (15 ml/L PGPR), and P2 (20 ml/L PGPR). A descriptive analysis approach was used to present the results of the disease inventory. The results identified five types of diseases: Bacterial Leaf Blight (*Xanthomonas oryzae*), Brown Spot (*Bipolaris oryzae*), Blast (*Pyricularia oryzae*), Sheath Blight (*Rhizoctonia solani*), and Potassium Deficiency. The percentage of disease severity and incidence observed at the final evaluation indicated a highly susceptible level in all experimental plots. However, the P2 plot was found to be the best, as it showed a lower percentage compared to the other plots.*

Keywords: Rice, Pathogen Diversity, Bioelicitor, PGPR