

## ABSTRACT

**EDI BEJO UTOMO**, this research is entitled " **The Effect of Humic Acid and Zeolite on the Growth and Productivity of Rice Plants (*Oryza sativa L.*) Varietal Ciherang** " Advisor I. Nanik Lutfiyah, S.Si., M.Si. and Il..Muchtarom, S.P., M.Si.

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Rice (*Oryza sativa L.*) is an annual crop belonging to the Gramineae family. This study aims to determine the effects of humic acid and zeolite on the growth and productivity of rice plants. The research was conducted on paddy fields in Ngrimbi Village, Bareng Subdistrict, Jombang Regency, from July to September 2023, using a factorial Randomized Block Design (RBD) with two treatment factors: organic fertilizer composition (humic acid and zeolite) and fertilizer dosage (1 ton/ha, 1.5 tons/ha, and 2 tons/ha).

The results showed that humic acid had a more dominant influence than zeolite on plant growth. The combination of humic acid and zeolite treatments also improved soil health, enhanced plant tissue structure, and supported optimal nutrient distribution. Indicators such as the number of tillers, panicle length, grains per panicle, and plant height were significantly affected by efficient photosynthesis. High productivity was also supported by controlled pest and disease (OPT) conditions. Overall, the study revealed a positive correlation between humic acid and zeolite treatments with the growth and yield of rice plants.

**Key words : Rice, Humic Acid, Zeolite**

