VEGETATIVE GROWTH RESPONSE OF SUGARCANE PLANTS (Saccharum officinarum L.) BULULULAWANG VARIETY TO THE DOSE OF AMINO ACID

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ABSTRACT

The purpose of this study was to determine the effect of amino acid dosing on the vegetative growth of sugar cane (Saccharum officinarum L.) Bululawang variety. The implementation of the research entitled "Vegetative Growth of Sugarcane (Saccharum officinarum L.) Bululawang Variety Against Amino Acid Dosage", was carried out from August to December 2024 at the Department of Agriculture, Jember State Polytechnic with a land area of 6 meters x 9.5 meters. The research method used a Non-Factorial Randomized Group Design (RAK) with four amino acid dose treatments repeated six times. The treatments were A0: without amino acid application (control) P1: Application of amino acid 250 ml/polybag P2: Application of amino acid 500 ml/polybag P3: Application of amino acid 750 ml/polybag. Parameters observed included plant height, number of leaves, number of tillers, stem diameter, and root volume. Observational data were analyzed using analysis of variance (anova), and further tested with LSD (Least Significant Difference) 5%. The results showed that the provision of amino acids had a significant effect on the parameters of plant height at the age of 42 HST, the number of tillers at the age of 42 and 63 HST, and root volume at the age of 126 HST and a very significant effect on the parameters of the number of leaves at the age of 42 san 63 HST. The dose of 750 ml (A3) gave better results in most of the observation parameters.

Keywords*: Amino Acids, Sugarcane, and Vegetative Growth.*