THE EFFECT OF GIVING AMINO ACID CONCENTRATION ON GROWTH OF SUGAR CANE SEEDLING (Saccharum officinarum L.) CENNING VARIETY

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ABSTRACT

Sugarcane (Saccharum officinarum L.) is one of the leading commodities in the plantation sector which is prioritized for consumption needs, namely in the form of sugar. However, the area of land and its productivity always fluctuate and the need for sugar exports always increases. Therefore, it is necessary to pay attention to sugarcane commodities, especially in the provision of superior and quality seeds. The provision of amino acids is one effort to maximize the quality of seeds in sugarcane nurseries. This study aims to determine the effect and best concentration in providing amino acids on the growth of sugarcane (Saccharum officinarum L.) seedlings of the Cenning variety. This study was conducted in August-December 2024 on the land of the Jember State Polytechnic. The experimental design in this study was a non factorial Randomized Block Design (RAK) consisting of 4 treatment levels, namely, amino acid with a concentration of P0 of 0ml/liter of water (control), P1 of 5ml/liter of water, P2 of 10ml/liter of water, and P3 of 15ml/liter of water with an application frequency of once every 2 weeks during the age of 90 HST seedlings. This study was conducted with 6 replications and 4 treatments on 6 experimental samples. . The parameters in this study include stem height growth (cm), number of shoots, number of leaves (strands), root weight (grams), total dry weight of the crown (grams). The results of this study indicate that the administration of amino acid with a concentration of 10 ml/L has an effect on the observation variables of the number of leaves (40,17 helai), the number of shoots (6,83) and the dry weight of the crown (26,13 gram).

Keywords*: Amino Acids, Nursery, Sugarcane*