

**THE EFFECT OF ADMINISTRATION OF ONION EXTRACT ON THE
GROWTH OF SUGAR CANE (*Saccharum Officinarum* L.)
BULULAWANG VARIETIES WITH
BUD SET METHOD**

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ABSTRACT

*Sugar cane (*Saccharum officinarum* L.) is the main source of sugar which has a vital role in meeting human needs. The demand for sugar continues to increase but the industry has not been fully able to meet these needs, mainly due to rapid population growth and scarcity of raw materials. One strategy to overcome this challenge is to utilize Plant Growth Regulators (PGRs), which can accelerate plant rooting and growth. This study aims to determine the effect of PGR concentration from shallot extract on the growth of sugarcane seedlings. The study was conducted from September to December 2024 at the Jember State Polytechnic Land. The experimental design used in this study was RAK (Randomized Block Design) Non-Factorial using 1 factor. Namely the difference in PGR concentration from shallot extract given such as (P0) (control) using NPK, treatment concentration at (P1) 10% concentration, (P2) 30% concentration, (P3) 50% concentration, and (P4) 70% concentration. Observation parameters in the study include stem diameter, plant height, number of leaves, number of shoots, root wet weight and root dry weight at 12 MST. This study obtained very significant results on the parameters of the number of leaves and root wet weight at age 12 (MST), and significantly different results on the parameters of the number of shoots and root dry weight in the 50% concentration treatment (P3). The results for the stem diameter and plant height parameters were not significantly different, with the 70% concentration treatment (P4) obtaining better results. The stem diameter obtained an average of 23.48 and the plant height parameter obtained an average of 134.1 at age 12 (MST).*

Key words : Sugar cane, (ZPT), concentration of shallot extract