THE EFFECT OF SOAKING TIME AND VARIOUS CONCENTRATIONS OF ZPT GIBBERELLINS ON THE GROWTH OF SUGARCANE SEEDLINGS FROM BUD SET (SACCHARUM OFFICINARUM L.) VARIETIES TO PS 862

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ABSTRACT

Sugar cane is a sugar-producing plantation crop. Efforts to increase the growth of Bud set seedlings can be done by immersing growth regulators or gibberellin hormone. This research conducted to determine the interaction between immersion duration and gibberellin's concentration in order to increase optimal growth. This research conducted on 28 July 2018 until 10 November 2018 in Politeknik Negeri Jember. The experimental design used was Randomized Block Design (RBD) factorial which consist of 2 factors with 3 replications. The first factor is the concentration of gibberellins (G), namely G0 gibberelin hormone 0 ppm, G1 gibberellin hormone 25 ppm, G1 gibberellin hormone 50 ppm, and G3 gibberellin hormone 75 ppm. The second factor is the Soaking Time (L), namely L1 soaking time is 5 hours, L2 is soaking time is 10 hours, L3 is soaking time is 15 hours. Observed data obtained were tested using F (Anova) test and if it showed significantly different results, then it will be further tested using DMRT at 5% level. The results showed that the treatment of gibberellins concentration significantly affected the germination rate (%) of the age of 14 HST, the treatment of gibberellins concentration gave a very significant effect on plant height (cm) and number of leaves (strands) aged 35 HST. The effect of gibberellin's concentration significantly affected the growth of tillers aged 35 and 56 HST, soaking time had a very significant effect on the number of tillers aged 35 HST, and the interaction of concentration and immersion duration significantly affected the growth of tillers aged 35, 56, 77, 98, and 119 HST . While the diameter indicator of the age of 119 HST bars showed no significant difference.

Keyword : Plant of cane, giberelin, bud set