Pengaruh Konsentrasi Myo-inositol dan Arang Aktif dalam Media Kultur *In Vitro* terhadap Pertumbuhan Planlet Anggrek Dendrobium *(Dendrobium sp)*
(Effect of Myo-inositol and Activated Charcoal Concentrations in In Vitro Culture Media on the Growth of Dendrobium Orchid Plantlets) (Dendrobium sp).
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ABSTRACT

Indonesia is a country that has the largest tropical forest and has a very diverse diversity of flora, one of which is orchids. orchids are in demand by many groups and make the economic value factor of orchids increase, efforts to increase orchid production are by in vitro propagation techniques, one of the success factors in in vitro culture with the addition of vitamins to the media used to increase plantlet growth, by means of concentration myo-inositol and activated charcoal. The purpose of this study was to determine the effect of myo-inositol and activated charcoal concentrations on the growth of dendrobium orchid plantlets. This research was conducted in May 2022 - August 2022, at the Jember State Polytechnic tissue culture laboratory. The design used in this study was a factorial Completely Randomized Design (CRD) with 2 factors and 3 replications, the first factor was the myo-inositol concentration which consisted of 3 levels namely M0 (Control), M1 (50 mg/l), M2 (100 mg/l). the second factor was the concentration of activated charcoal which consisted of 3 levels namely A0 (Control), A1 (1 mg/l), A2 (2 mg/l). Data analysis used the F test (ANOVA) and continued with the 5% level DMRT test. The results showed that the concentration of myo-inositol M2 (100 mg/l) had a very significant effect (**) on all observation parameters. increase in plant height (1.81cm), increase in leaf length (1.27cm), increase in the number of leaves (5.63 strands) and increase in the number of roots (5.09). Treatment of activated charcoal concentration had a very significant effect (**) on the parameters of plant height increase (1.67 cm), leaf length increase (1.08 cm), root number increase (4.83), and had a significantly different effect ( ) on the parameter increase in the number of leaves (5.15 strands), the interaction between the concentrations of myoinositol and activated charcoal had no significant effect (ns) on all observation parameters.*

***Key Words**: Dendrobium sp, In Vitro ,Myo-inositol, activated charcoal*