

**GROWTH OF BARANGAN BANANA (*Musa acuminata* Linn.) POST
ACCLIMATIZATION IN VARIOUS CHITOSAN CONCENTRATIONS
AND PLANT MEDIA COMPOSITIONS**

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ABSTRACT

The post-acclimatization stage is a critical period for tissue cultur barangan banana plants to adapt to the open field environment. The application of chitosan and the selection of the composition of plant media have the potential to improve plant growth and development of banana plants. The objective of this study was to obtain the best chitosan concentration and plant media composition for the growth of banana plants post-acclimatization. The study was a field experiment with a Split Plot Design. The Main Plot was chitosan concentration of 6; 9; 12 mL/L. The Subplot was the composition of plant media (soil: cow manure: cocopeat) with composition of 2:1:1, 1:2:1, 1:1:2. Data were analyzed using variance analysis at 5% level and further tested with DMRT at 5% level. The results showed that there was an interaction between chitosan concentration of 6 mL/L and the composition of plant media 1:1:2 on root length at the age of 90 DAP. Chitosan concentration of 12 mL/L can increase the size of stem diameter at the age of 90 DAP. Composition of plant media soil: cow manure: cocopeat (1:2:1) can increase plant height at 75 DAP, number of leaves at 75 DAP, and plant dry weight at 90 DAP.

Keywords: Barangan banana, chitosan, plant media.