

**Testing the Use of AB Mix Fertilizer and the Addition of Mycorrhizal
Biological Fertilizer on the Growth and
Production of Watermelon
(*Citrullus lanatus* L.)**

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ABSTRACT

Watermelon (*Citrullus Lanatus* L.) is a horticultural commodity that has prospects and priorities for development. The low production of watermelon seeds can be caused by constraints in the seed production process, namely the ineffective use of fertilizers or the provision of nutrients that are not fulfilled. This study aims to examine the concentration of AB mix and the addition of mycorrhizal biofertilizer which is appropriate for the growth and production of watermelon seeds in the Wiro C field of PT. Seed Citra Asia in Wirolegi village, Ajung, Jember on December 5, 2020 to March 1, 2021. This study was designed using a two-factorial Randomized Block Design (RAK) with 3 replications, the first factor being the concentration of AB and the second factor being mycorrhizal biofertilizer. The first treatment consisted of 4 levels, namely P0: control, P1: 5 ml/L, P2: 7.5 ml/L, P3: 10 ml/L. The second factor consisted of 2 levels, namely M0: control and M1: 10gr/hole. Observational data were analyzed statistically using ANOVA variance, if the results showed significantly different results in the AB mix concentration treatment, further tests were carried out using DMRT at 5% level and using LSD 5% if the results were significantly different in the mycorrhizal treatment. The conclusion of the study was that there was no interaction effect of the concentration of AB mix and mycorrhizae on all observed variables. The application of AB mix significantly affected plant length at 21 DAP, fruit weight, seed/fruit weight, 1000 grain weight and seed production per hectare. Mycorrhizal application had a significant effect on plant length at the age of 14 and 21 DAP, flower appearance, fruit weight, seed/fruit weight, 1000 grain weight and yield per hectare.

Keywords: AB mix, Mycorrhiza, Watermelon