

**APPLICATION OF VARIOUS GA3 CONCENTRATIONS  
ON THE GROWTH AND YIELD OF MELON (*Cucumis melo* L.)  
IN A DRIP HYDROPONIC SYSTEM**

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**ABSTRACT**

Melon (*Cucumis melo* L.) is one of the horticultural crops with high economic value. Melon production is influenced by the application of appropriate cultivation technology. Efforts to increase melon production can be achieved through hydroponic cultivation and the application of GA3. This research aims to examine the effect of GA3 and determine the optimal GA3 concentration for the growth and yield of melon plants using a drip hydroponic system. The research was conducted as a field experiment using a Completely Randomized Design with a single factor, consisting of GA3 concentrations of 0 ppm, 50 ppm, 100 ppm, 150 ppm, 200 ppm, and 250 ppm. Data were analyzed using Analysis of Variance (ANOVA) and further tested with Duncan's Multiple Range Test (DMRT) at a 5% significance level. The results showed that GA3 application significantly affected leaf area at 21 DAP and 28 DAP, dry plant weight at 28 DAP and 35 DAP, flowering time, fruit flesh thickness, and fruit sweetness. The 200 ppm GA3 treatment had the best effect on leaf area at 28 DAP, while the 150 ppm concentration had the best effect on fruit sweetness.

Keywords: Melon, GA3, drip hydroponic, concentration