

**PENGARUH PEMBERIAN ZAT PENGATUR TUMBUH IBA,  
GA3 TERHADAP PERTUMBUHAN AKAR PLANLET  
KELAPA DALAM (*Cocos Nucifera L.*) PADA  
MEDIA EEUWENS (Y3)**

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**ABSTRACT**

Coconut (*Cocos nucifera L.*) is a tropical plant that is widely known by the Indonesian people. Coconut has many benefits and is still needed by the people of Indonesia. The results of coconut production in Indonesia have decreased every year. The decline in coconut production in Indonesia is due to the decrease in land area every year, the relatively old age of coconuts and the average plant age of 60 years, so it is necessary to carry out plant rejuvenation. Rejuvenation using coconut embryo tissue culture technique. Problems in coconut tissue culture techniques that often occur are contamination and less than optimal root growth in plantlets. The growth regulators used are IBA and GA3. IBA (*Indole Butyric Acid*) is a synthetic auxin that functions to stimulate root formation and cell division, while GA3 (*gibereline*) functions to develop and germinate embryos. This study aims to determine the effect and combination of growth regulators IBA and GA3 on the growth of coconut plantlet roots. This research was conducted in June-December 2021 at the Tissue Culture Laboratory, Department of Agricultural Production, Jember State Polytechnic. The experimental design used was a Non-factorial Completely Randomized Design, which consisted of 5 treatments and 5 replications with the administration of ZPT IBA (Indole Butyric Acid) and GA3 (gibereline) with concentrations (IBA: 4 ppm, GA3: 2 ppm, IBA + GA3 : 4 ppm + 2 ppm, IBA + GA3 : 2 ppm + 4 ppm, IBA + GA3 : 2 ppm + 2 ppm). The results showed that the addition of IBA and GA3 gave no significant effect on the growth of deep coconut plantlet roots on Eeuwens media (Y3).

Keywords: IBA (*Indole Butyryd Acid*) and GA3 (*gibereline*), Coconut (*Cocos nucifera L.*), Embryo Culture, Eeuwens Media (Y3).