THE EFFECT OF IBA ON THE GROWTH OF COCONUT PLANLETS *(Cocos nucifera* L.*)* ROOT ON Y3 MEDIA
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ABSTRACT

Coconut *(Cocos nucifera* L.*)* is a plantation commodity that has many benefits and is widely developed in Indonesia. Currently, Indonesia's national coconut production has not been able to meet the national demand for coconut. Low coconut production is due to a decrease in land area and relatively old plant age, so it needs replanting. Cultivation of the seeds is carried out by utilizing biotechnology, coconut embryo culture techniques. The classic problem in coconut propagation using coconut embryo culture techniques that is often faced is the less than optimal growth at the roots. IBA (Indole Butiryd Acid) is a synthetic auxin, which functions to stimulate and induce root growth. This study aims to determine the effect and concentration of the addition of IBA which can stimulate the growth of the roots of coconut plantlets. This research was conducted in July-December 2020 at the Tissue Culture Laboratory, Jember State Polytechnic. The experimental design used was a non-factorial Completely Randomized Design (CRD), which consisted of 4 treatments with the addition of IBA ZPT with concentrations (1 ppm / l, 1.5 ppm / l, 2 ppm / l, 2.5 ppm / l). The results showed that the addition of IBA (Indole Butiryd Acid) had no significant effect on root growth of coconut plantlets in cultured Y3 media.

Key words*: IBA (Indole Butiryd Acid), Coconut (Cocos nucifera L.), Embryo Culture, Y3 Med*