

**THE EFFECT OF GROWTH REGULATORY SUBSTANCES
OF IBA AND BAP ON THE GROWTH OF COCONUT
PLANTELLS (*Cocos nucifera* L.) ON MEDIA
EEUWENS (Y3)**

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ABSTRACT

Coconut (*Cocos nucifera* L.) is a plant with high economic value in Indonesia. Coconut productivity is still relatively low, and coconut productivity is between 1100-1136 kg/ha. The low productivity is due to the old age of the plant. One of the efforts to improve coconut productivity is through plant rejuvenation. For this reason, large quantities of coconut seeds are needed, and tissue culture methods can be used as an alternative to solving the coconut problem in Indonesia. Propagation of the coconut tissue culture method often causes problems with the low growth of coconut roots. This study aims to determine the effect of growth regulators IBA and BAP on the growth of coconut plants on Eeuwens media (Y3). This research was carried out in June-September 2021 at the Jember State Polytechnic Network Culture Laboratory. The experimental design used was a non-factorial randomized block design (RAK), which consisted of 5 treatments with the addition of ZPT IBA and BAP with concentrations (IBA 2 ppm/l, BAP 4 ppm/l, IBA 2 ppm/l + BAP 4 ppm/l, IBA 4 ppm/l + BAP 2 ppm/l, IBA 4 ppm/l + BAP 4 ppm/l). The synthetic hormone IBA (Indole Butyric Acid) is a synthetic auxin suitable for stimulating the growth of coconut plant roots. BAP (Benzyl Amino Purine) is a synthetic cytokinin good for a shoot and root growth. The combination of auxin and cytokinin is a combination that is needed in tissue culture. The results showed that the addition of IBA (*Indole Butyric Acid*) and BAP (*Benzyl Amino Purine*) had no significant effect on the growth of coconut plants on the Y3 media that had been cultured.

Keywords: IBA (*Benzyl Amino Purine*), BAP (*Benzyl Amino Purine*), Coconut Plantlet (*Cocos nucifera* L.), Media Eeuwens Y3