

**THE INFLUENCE OF ADDITION ZPT NAA (*Naphthalena acetic acid*)
AND BAP (*6-Benzylamino purine*) ON THE GROWTH OF SWEET
POTATO (*Ipomoea batatas* L.) CILEMBU IN VITRO**

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ABSTRACT

*Sweet potato (*Ipomoea batatas* L.) Cilembu is one of the sweet potatoes originating from West Java. However, not all land can produce Cilembu sweet potato as in Cilembu Village. To increase Cilembu sweet potato production, it can be done by intensifying superior seeds through in vitro culture. This study aims to determine the effect of adding ZPT NAA and BAP on the growth of Cilembu sweet potato. This research was conducted in September - December 2022 at the Jember State Polytechnic Tissue Culture Laboratory using a 2-factor Completely Randomized Design, namely NAA and BAP with 9 treatment combinations and 3 replications to obtain 27 culture bottles. The variables observed were Early Callus Appearance, Callus Quality and Callus Diameter. Variable Early Appearance of Callus and Callus Diameter were analyzed using ANOVA and further tested with DMRT while callus quality variables were analyzed with Chi-Square K Test Independent Samples. The results of this study showed that the addition of ZPT NAA was significantly different from the early appearance of callus at 4 WAP with the best concentration of 0.5 mg/l. The addition of PGR BAP significantly differed on the callus diameter with the largest callus diameter of 7.95 mm with the best concentration of 1 mg/l but not significantly different on the early appearance of callus and callus quality (callus texture). The interaction between ZPT NAA and BAP treatments was not significantly different on the early onset of callus and callus diameter variables. The interaction of ZPT NAA and BAP treatments had no effect on callus quality (texture) variables.*

Keywords: Callus, Concentration, In Vitro