ABSTRACT

Orchid Cymbidium (*Cymbidium finlaysonianum* Lindl.) are ornamental plants that have a higher economic value compared to other types of ornamental plants. A challenge faced in orchid cultivation is the difficulty of propagating them sexually, as orchid seeds lack endosperm as a food reserve. This study aims to determine the effect of medium type and BAP growth regulator concentration on the growth of Cymbidium orchid subculture II in vitro. The study was conducted at the Plant Tissue Culture Laboratory, Faculty of Agriculture, Universitas Malikussaleh, North Aceh, from October to December 2025. The method used was a two-factor completely randomized design (CRD) with 10 replicates. The first factor was the type of medium, namely MS and Knudson C media, while the second factor was the BAP concentration B0 (0,0 mg/L), B1 (0,3mg//L), B2 (0,6 mg/L) and B3 (0,9 mg/L). The observed variables included survival rate, shoot growth, number and height of shoots, number of leaves, and root growth. The results showed that the type of medium affected the time of shoot emergence, leaf length, and time of root emergence, with the best results observed in the MS medium. BAP concentration affected the number of interaction between medium type and BAP concentration on any of the observed parameters. This study concluded that the use of MS medium and 0,6 mg/L BAP is the best combination for enhancing explant growth.

Kata kunci: Cytokinin, Growth Regulator, Hormone.