

**Aplikasi Vitamin B1 dan Pupuk Growmore terhadap Pertumbuhan Bibit
Krisan Varietas Fiji pada Tahap Aklimatisasi.**
*Application of Vitamin B1 and Growmore Fertilizer on the Growth of Fiji Variety
Chrysanthemum Seedlings during the Acclimatization Stage*

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ABSTRACT

Chrysanthemum (*Chrysanthemum indicum* L.) is a highly economically valuable ornamental plant widely propagated through tissue culture techniques. One of the critical stages in this propagation is the acclimatization process, as plantlets must adapt from in vitro to ex vitro conditions, which often causes physiological stress and reduces plant survival. This study aimed to determine the effect of vitamin B1 application and Growmore foliar fertilizer, as well as their interaction, on chrysanthemum growth during the acclimatization stage. The study was conducted in the Greenhouse of the Tissue Culture Laboratory of Jember State Polytechnic from June to September 2025 using a completely randomized design (CRD) with two factors. The first factor was the vitamin B1 concentration (2 ml/L, 3 ml/L, and 4 ml/L), while the second factor was the Growmore fertilizer concentration (2 g/L, 3 g/L, and 4 g/L). Each treatment was replicated three times. Observed parameters included survival percentage, plant height, number of leaves, root length, and number of tillers. Data were analyzed using analysis of variance (ANOVA) followed by a LSD test at the 5% level. The results showed that vitamin B1 application significantly affected plant height, while Growmore fertilizer significantly affected the survival rate and root length. The interaction between vitamin B1 and Growmore fertilizer significantly affected the survival rate and root length of chrysanthemum plantlets during the acclimatization stage. The 3 g/L Growmore fertilizer treatment resulted in the highest plant height growth, while certain treatment combinations achieved survival rates of up to 100%. The results of the study showed that the application of Vitamin B1 significantly affected plant height and Growmore Fertilizer significantly affected the percentage of living plants and root length. The interaction of Vitamin B1 and Growmore Fertilizer significantly affected root length. The combination of Vitamin B1 4ml/liter and Growmore Fertilizer 4gr/500ml of water was able to increase the success of the acclimatization process and vegetative growth in chrysanthemum plant root elongation.

Keywords: *Acclimatization, chrysanthemums, Growmore fertilizer, vitamin B1*