

The Application of Foliar Fertilizer and Vitamin B1 on the Growth of Orchid (Dendrobium) Acclimatization Stage Supervisor Dr.Netty Ermawati, SP.

Firdayatul Aulia

Seed Production Technique Study Program
Agricultural Production Department

ABSTRACT

Orchid is one of the elaborate plants with high economic value. Dendrobium is one of the numerous orchids that are most sought after by public. The difficult of conventional vegetative orchid production makes In Vitro development technique as a solution. The application of fertilizer and vitamin B1 are able to increase the development and the quality of orchid seedlings during acclimatization. The research was conducted from January to April 2021 in Tissue Culture Greenhouse of State Polytechnic of Jember. The research used factorial totally randomized with 2 factors. Each factor consists of 3 levels and replicated 3 times. The first factor is growmore fertilizer 1 gr/l (P1), *Growmore* fertilizer 2 gr/l (P2), growmore fertilizer 3 gr/l (P3). The second factor is vitamin B1 1.5 ml/l (V1), vitamin B1 2 ml/l (V2), vitamin B1 3 ml/l (V3). The data will be analyzed by the F test formula (ANNOVA) and continued with Duncan Multiple Range Test (DMRT) with an error rate 5%. The results showed that the application of foliar fertilizer has a very significant effect on the parameters of plant height, number of leaves, leaf width, and leaf length. Meanwhile the application of vitamin B1 has a very different effect on the parameter of the number of new shoots. The interaction between foliar fertilizer and vitamin B1 has a very significant effect on the parameter of the number of new shoots. The interaction of foliar fertilizer 3 g/l and vitamin B1 3 ml/l showed the highest average of the number of new shoots is 1.5 shoots.

Keywords : Orchid *Dendrobium*, Foliar Fertilizer, Vitamin B1