

Optimasi Pertumbuhan Planlet Cattleya Melalui Kombinasi Kekuatan Media MS dan Bahan Organik secara In vitro. Optimization Growth of Cattleya Planlet through Strength of MS Media and Organic Materials Combination Using In vitro Culture. *Advisor: Dr. Netty Ermawati, SP. dan Ir. Titien Suhermatin, MP.*

Rianti Latifah

Seed Production Techniques, Agricultural Production

ABSTRACT

One of the many techniques to growth Cattleya using in vitro culture is by combining different concentration of media addition of organic materials such as Carrot extract and Coconut water. This research was held for 4 months, in 28th February 2016 to 27th June 2016 at Tissue Culture Laboratory State Polytechnic of Jember. The research was conducted using Randomized Design Group with 2 factors and 3 replications. The first factor was Media MS Concentration there were ¼ MS, ½ MS and full MS. The second factor was carrot extract + coconut water with concentration 40 ml/L carrot extract + 150 ml/L coconut water, 50 ml/L carrot extract + 200 ml/L coconut water and 60 ml/L carrot extract + 250 ml/L coconut water. The result showed that the used of ¼ MS and full MS gave no significant effect to all parameters. The best combination obtains significant in ½ MS + 50 ml/l carrot extract + 200 ml/L coconut water which resulted in highly significant interaction on parameters of plant height and significantly different in the number of roots at 12 weeks after planting. In addition, organic material with 50 ml / L carrot extract and 200 ml/L of coconut water was produce highly significant of plant height compared to other treatments.

Keywords : MS Media, Carrot extract+coconut water, Cattleya orchid.