ADDITION BENZYL ADENINE AND ACTIVE CHARCOAL ON THE GROWTH OF VANILLA (Vanilla planifolia Andrews.) IN VITRO

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ABSTRACT

A constraint to vanilla production in Indonesia is availability quality seedlings in short time. Efforts produce high quality vanilla carried *in vitro* propagation of vanilla. This study aims to study interaction of BA and active charcoal on vanilla growth in vitro, get right concentration of BA and active charcoal for vanilla growth in vitro. The research was a laboratory experiment using a 2-factor completely randomized design (CRD). The first factor is concentration of BA 2; 2,5; 3 mg/L. The second factor was active charcoal concentration of 1,5; 2; 2,5 g/L. The data obtained were analyzed with Analysis of Variance at the 5% level, further tested with DMRT at the 5% level. There was interaction between treatment BA concentration and active charcoal on the parameters of number leaves and fresh weight of planlets. The treatment combination BA 2,5 mg/L and active charcoal 1,5 g/L on the number leaves. BA 2 mg/L and active charcoal 2 g/L on planlet weight, but not different from treatment combination BA 2,5 mg/L and active charcoal 1,5 g/L. BA 2 and 2,5 mg/L is right concentration emergence, planlet height, number shoots, root length. Active charcoal 1,5 and 2 g/L is the right concentration the number roots and root length.

Keywords: Vanilla, *Benzyl Adenine*, Active Charcoal, *In vitro*