

ABSTRACT

Patchouli (*Pogostemon cablin* Benth.) is an essential oil-producing plant that is a leading export commodity that contributes to foreign exchange. Aceh Patchouli is generally propagated vegetatively, as it lacks flowers and seeds as generative breeding organs. The problem of conventional vegetative cultivation of Aceh patchouli is that the mother plant is attacked by pathogens, the number of seedlings produced is limited with a longer time. Efforts can be made to overcome this problem by using plant propagation techniques through *in vitro* culture. This study was conducted to obtain the best concentration of BAP and NAA in the propagation of Aceh patchouli plant micro cuttings *in vitro*. This study used a two-factor Completely Randomized Design (WRD) method with 10 repeats of combination treatment. The first factor is that the concentration of BAP consists of 3 levels of B0 (0,0 ppm), B1 (1,5 ppm), and B2 (3,0 ppm). The second factor is the concentration of NAA consisting of 3 levels of N0 (0,0 ppm), N1 (1,5 ppm), and N2 (3,0 ppm). The results showed that BAP treatment affected the Aceh patchouli micro cuttings *in vitro* at shoot growth time, the number of shoots at 6-8 WAP, shoot height, the number of leaves at 2-5 and 7 WAP, root growth time, the number of roots and root height. The best BAP treatment is found at a BAP concentration of 1,5 ppm. NAA treatment affects the number of shoots at 2-8 WAP, shoot height, the number of leaves at 2-8 WAP, shoot height, root growth time, the number of roots and root height. The best NAA treatment is found at a NAA concentration of 1,5 ppm. There is an interaction between the concentration of BAP and NAA at shoot growth time, the number of shoots at 1, 3 and 7 WAP, shoot height, and the number of leaves at 1-4 WAP and 6-8 WAP, root growth time and root height. The best interaction treatment at a concentration of BAP 1,5 ppm and 1,5 ppm NAA.

Keywords: Aceh Patchouli, BAP, NAA, *In Vitro* Culture, Micro Cutting.