

## ABSTRAK

**Aprinia Hutagaol, NIM 4212620004 (2021). Pengaruh BAP (*Benzyl Amino Purine*) dan Ekstrak Tauge (*Phaseolus aureus*) terhadap Multiplikasi Tanaman Nilam (*Pogostemon cablin* Benth.) secara *In Vitro*.**

Penelitian ini bertujuan untuk mengetahui pengaruh BAP (*Benzyl Amino Purine*) dan ekstrak tauge (*Phaseolus aureus*) terhadap multiplikasi tanaman nilam (*Pogostemon cablin* Benth.) secara *in vitro*. Penelitian ini didisain dalam Rancangan Acak Lengkap (RAL) faktorial yaitu BAP dengan 4 taraf konsentrasi (0 ppm, 0,5 ppm, 1 ppm, 1,5 ppm) dan ekstrak tauge dengan 3 taraf konsentrasi (0%, 12%, 15%) setiap perlakuan kombinasi BAP dan ekstrak tauge diulang sebanyak 3 kali ulangan. Penelitian dilaksanakan pada bulan Juni - Agustus 2025 di Laboratorium G10 Agro Tech Medan. Parameter pengamatan yang dilakukan pada penelitian ini adalah persentase planlet hidup, tinggi planlet, jumlah tunas, jumlah daun, dan jumlah akar. Analisis data menggunakan ANAVA dan uji lanjut dengan uji DMRT 5%. Hasil penelitian menunjukkan bahwa pemberian BAP berpengaruh nyata terhadap peningkatan jumlah tunas, daun, dan akar, tetapi tidak berpengaruh nyata terhadap tinggi planlet. Perlakuan ekstrak tauge tidak memberikan pengaruh nyata terhadap tinggi planlet, jumlah tunas, jumlah daun, dan jumlah akar. Konsentrasi BAP 0,5 ppm memberikan hasil terbaik pada pertumbuhan tunas dan daun, dan perlakuan tanpa BAP justru menghasilkan jumlah akar terbanyak. Kombinasi perlakuan BAP dan ekstrak tauge berpengaruh nyata terhadap jumlah tunas dan daun, namun tidak berpengaruh nyata terhadap tinggi planlet dan jumlah akar. Kombinasi BAP 0,5 ppm dengan ekstrak tauge 15% menghasilkan jumlah tunas dan daun terbaik, dengan rata-rata 2,92 tunas dan 4,28 daun.

**Kata kunci:** Nilam, Multiplikasi, BAP, Ekstrak tauge

## ABSTRACT

**Aprinia Hutagaol, NIM 4212620004 (2021). The Effect of BAP (*Benzyl Amino Purine*) and Bean Sprouts Extract (*Phaseolus aureus*) on Patchouli Plant Multiplication (*Pogostemon cablin* Benth.) *In Vitro*.**

This study aims to determine the effect of BAP (*Benzyl Amino Purine*) and bean sprout extract (*Phaseolus aureus*) on the multiplication of patchouli plants (*Pogostemon cablin* Benth.) *in vitro*. This study was designed in a factorial Completely Randomized Design (CRD) namely BAP with 4 concentration levels (0 ppm, 0,5 ppm, 1 ppm, 1,5 ppm) and bean sprout extract with 3 concentration levels (0%, 12%, 15%) each combination treatment of BAP and bean sprout extract was repeated 3 times. The study was conducted in June - August 2025 at the G10 Agro Tech Medan Laboratory. The observation parameters carried out in this study were the percentage of live plantlets, plantlet height, number of shoots, number of leaves, and number of roots. Data analysis used ANOVA and further tests with 5% DMRT test. The results showed that the administration of BAP significantly increased the number of shoots, leaves, and roots, but did not significantly affect the height of the plantlets. The treatment of bean sprout extract did not significantly affect the height of the plantlets, the number of shoots, the number of leaves, and the number of roots. A BAP concentration of 0.5 ppm gave the best results on the growth of shoots and leaves, and the treatment without BAP actually produced the highest number of roots. The combination of BAP and bean sprout extract significantly affected the number of shoots and leaves, but did not significantly affect the height of the plantlets and the number of roots. The combination of 0.5 ppm BAP with 15% bean sprout extract produced the best number of shoots and leaves, with an average of 2.92 shoots and 4.28 leaves.

**Keywords:** Patchouli, Multiplication, BAP, Bean sprout extract