

**PENGARUH KONSENTRASI *Indole Butyric Acid* dan *Benzyl Amino Purine*  
TERHADAP PERTUMBUHAN EKSPLAN TUNAS PISANG CAVENDISH  
(*Musa acuminata*) SECARA *IN VITRO***

Oleh

**Dhea Asri Firliana  
NPM. 175001148**

**Dosen Pembimbing  
Yaya Sunarya  
Adam Saepudin**

**ABSTRAK**

Zat pengatur tumbuh dalam kultur jaringan merupakan komponen penting untuk menentukan arah pertumbuhan dan perkembangan eksplan. Penelitian bertujuan untuk mengetahui pengaruh konsentrasi IBA (*Indole Butyric Acid*) and BAP (*Benzyl Amino Purine*) serta interaksi antara keduanya terhadap pertumbuhan eksplan tunas pisang Cavendish. Penelitian dilaksanakan di Laboratorium Bioteknologi Fakultas Pertanian Universitas Siliwangi pada bulan Juli hingga November 2021. Percobaan ini menggunakan metode Rancangan Acak Lengkap (RAL) Faktorial yang terdiri dari dua faktor, diulang sebanyak tiga kali. Faktor pertama adalah konsentrasi *Indole Butyric Acid* (IBA) yaitu 0 ppm, 0,5 ppm, dan 1 ppm, faktor kedua adalah konsentrasi *Benzyl Amino Purine* (BAP) yaitu 0 ppm, 2 ppm, dan 4 ppm. Data hasil penelitian dianalisis menggunakan sidik ragam dan diuji lanjut dengan uji jarak berganda Duncan dengan taraf nyata 5%. Hasil penelitian menunjukkan bahwa terdapat interaksi antara konsentrasi IBA dan BAP terhadap jumlah tunas, panjang tunas, jumlah akar, panjang akar dan jumlah daun.

Kata kunci: Pisang Cavendish, *Indole Butyric Acid*, *Benzyl Amino Purine*, Eksplan.

**THE EFFECT OF CONCENTRATION INDOLE BUTYRIC ACID AND  
BENZYL AMINO PURINE ON THE GROWTH OF CAVENDISH  
BANANA SHOOT EXPLANTS (*Musa acuminata*) IN VITRO**

**By**

**Dhea Asri Firliana  
NPM. 175001148**

**Under Guidance of**

**Yaya Sunarya  
Adam Saepudin**

**ABSTRACT**

Plant growth regulators in tissue culture are critical components in determining growth and development of the explants. The research aimed to determine the effect of IBA (*Indole Butyric Acid*) and BAP (*Benzyl Amino Purine*) concentration and interaction of them on the growth of Cavendish banana shoot explants. The research was carried out at the Biotechnology Laboratory of the Faculty of Agriculture, Siliwangi University in July to November 2021. The experiment was designed in Completely Randomized Design (CRD) in factorial which consists of two factors and was repeated three times. The first factor is concentrations of IBA (*Indole Butyric Acid*) 0, 0,5 and 1 ppm, the second factor is concentrations of BAP (*Benzyl Amino Purine*) 0, 2 and 4 ppm. Data were analyzed using analysis of variance and continued with Duncan's multiple range test with 5% significance level. The result of the study showed that there is an interaction between concentrations of IBA and BAP on the number of shoots, length of shoots, number of roots, length of roots, and number of leaves.

Keywords: Cavendish, *Indole Butyric Acid*, *Benzyl Amino Purine*, Explants.