

**PENGARUH PEMBERIAN KONSENTRASI AUKSIN DAN KOMPOSISI
MEDIA TANAM TERHADAP PERTUMBUHAN STEK LADA
(*Piper nigrum* L.)**

Disusun Oleh: Zulfa Laila Saidah
Dibimbing oleh: Ellen Rosyelina Sasmita dan Endah Budi Irawati

ABSTRAK

Lada merupakan komoditas unggulan sektor perkebunan bernilai ekonomi tinggi. Perbanyakan secara stek disertai penambahan auksin dan komposisi media tanam yang tepat dilakukan untuk mendapatkan tanaman baru yang seragam dan berkualitas. Penelitian bertujuan mengetahui interaksi antara konsentrasi auksin dan komposisi media tanam terhadap pertumbuhan stek lada, mendapatkan konsentrasi auksin dan komposisi media tanam yang paling baik untuk pertumbuhan stek lada. Penelitian dilakukan di Jalan Losari, Kalurahan Sukoharjo, Kapanewon Ngaglik, Kabupaten Sleman, Daerah Istimewa Yogyakarta, pada bulan April-Juli 2025. Penelitian menggunakan Rancangan Acak Lengkap (RAL) dua faktor dengan 3 ulangan. Faktor pertama yaitu konsentrasi auksin 0, 150, 250, dan 350 ppm. Faktor kedua yaitu komposisi media tanam tanah: arang sekam: pupuk kandang perbandingan (1:1:2), (1:2:1), dan (2:1:1). Data dianalisis dengan *Analysis of Variance* (ANOVA) taraf 5%, diuji lanjut dengan *Duncan Multiple Range Test* (DMRT) taraf 5%. Kombinasi perlakuan auksin 250 ppm dengan komposisi media tanam tanah: arang sekam: pupuk kandang (2:1:1) memberikan hasil terbaik pada parameter jumlah akar, panjang akar, dan volume akar. Konsentrasi auksin 250 ppm memberikan hasil pertumbuhan yang terbaik pada parameter jumlah tunas, panjang tunas umur 4 dan 8 MST, dan luas daun. Komposisi media tanam tanah : arang sekam : pupuk kandang (2:1:1) memberikan hasil pertumbuhan yang terbaik pada parameter jumlah tunas, panjang tunas umur 4 dan 8 MST, dan luas daun.

Kata Kunci: *Stek, Lada, Auksin, Komposisi Media*

**THE EFFECT OF AUXIN CONCENTRATION AND PLANTING MEDIA
COMPOSITION ON THE GROWTH OF PEPPER CUTTINGS
(*Piper nigrum* L.)**

By: Zulfa Laila Saidah

Supervised by: Ellen Rosyelina Sasmita and Endah Budi Irawati

ABSTRACT

Pepper is a high-value commodity in the plantation sector. Propagation by cuttings accompanied by the addition of auxin and the right composition of planting media is carried out to obtain uniform and high-quality new plants. The study aims to determine the interaction between auxin concentration and planting media composition on pepper cutting growth, and to obtain the best auxin concentration and planting media composition for pepper cutting growth. The research was conducted on Losari Street, Kalurahan Sukoharjo, Kapanewon Ngaglik, Sleman Regency, Special Region of Yogyakarta, from April to July 2025. The research used a Completely Randomized Design (CRD) with two factors and three replicates. The first factor was auxin concentration of 0, 150, 250, and 350 ppm. The second factor was the composition of the planting medium: soil: charcoal husk: manure in a ratio of (1:1:2), (1:2:1), and (2:1:1). The data were analyzed using Analysis of Variance (ANOVA) at a 5% level and further tested using Duncan's Multiple Range Test (DMRT) at a 5% level. The combination of 250 ppm auxin treatment with a soil: charcoal: manure growing medium composition (2:1:1) produced the best results in terms of root number, root length, and root volume. Auxin concentration of 250 ppm provided the best growth results in terms of shoot number, shoot length at 4 and 8 MST, and leaf area. The soil:charcoal:manure (2:1:1) growing medium composition provided the best growth results in terms of shoot number, shoot length at 4 and 8 MST, and leaf area.

Keywords: *Cutting, Pepper, Auxin, Planting Media.*