

**PENGARUH BEBERAPA KOMPOSISI MEDIA KOMPOS TERHADAP
KEBERHASILAN PERTUMBUHAN SETEK BATANG VANILI (*Vanilla
planifolia* Andrews)**

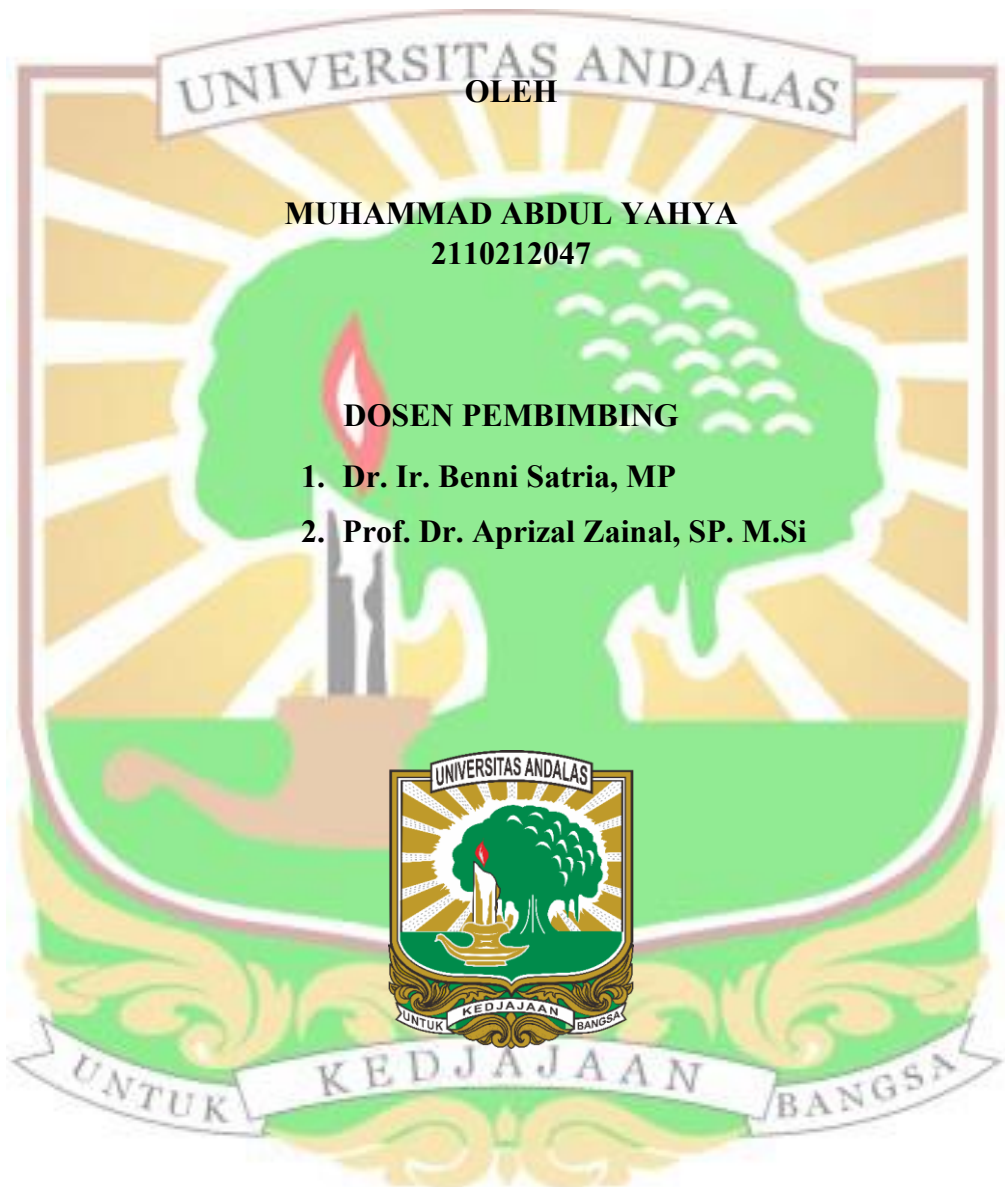
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PADANG

2026

PENGARUH BEBERAPA KOMPOSISI MEDIA KOMPOS TERHADAP KEBERHASILAN PERTUMBUHAN SETEK BATANG VANILI (*Vanilla planifolia* Andrews)

Abstrak

Vanili merupakan komoditas perkebunan bernilai ekonomi tinggi yang umumnya diperbanyak secara vegetatif melalui setek batang. Keberhasilan pertumbuhan setek dipengaruhi oleh berbagai faktor, salah satunya kualitas media tanam. Pemanfaatan kompos yang berasal dari berbagai sumber limbah organik berpotensi memperbaiki sifat fisik, kimia, dan biologi media tanam sehingga dapat mendukung pertumbuhan awal tanaman. Penelitian ini bertujuan untuk mengetahui pengaruh beberapa komposisi media kompos terhadap pertumbuhan setek batang vanili serta menentukan komposisi kompos yang memberikan pertumbuhan terbaik. Penelitian dilaksanakan di Nagari Toboh Ketek, Kecamatan Enam Lingsung, Kabupaten Padang Pariaman, Sumatera Barat, pada bulan Desember 2025 hingga Maret 2026. Percobaan disusun menggunakan Rancangan Acak Lengkap (RAL) dengan tiga perlakuan, yaitu kompos limbah rumah tangga, kompos limbah pasar, dan kompos limbah pertanian, masing-masing diulang empat kali. Data dianalisis menggunakan uji F pada taraf nyata 5% dan dilanjutkan dengan uji Duncan's New Multiple Range Test (DNMRT) apabila perlakuan berpengaruh nyata. Hasil penelitian menunjukkan bahwa perbedaan komposisi media kompos berpengaruh nyata terhadap panjang tunas dan diameter tunas, tetapi tidak berpengaruh nyata terhadap waktu muncul tunas, persentase setek hidup, panjang daun, lebar daun, jumlah daun, panjang akar, bobot biomassa total, dan bibit siap salur. Kompos limbah rumah tangga menghasilkan pertumbuhan terbaik, ditunjukkan oleh panjang tunas dan diameter tunas tertinggi, sehingga berpotensi digunakan sebagai media tanam yang efektif untuk mendukung pertumbuhan awal setek batang vanili.

Kata Kunci: kompos, limbah organik, media tanam, pertumbuhan setek, vanili

THE EFFECT OF SEVERAL COMPOST MEDIA COMPOSITIONS ON THE GROWTH SUCCESS OF VANILLA STEAM CUTTINGS (*Vanilla planifolia* Andrews)

Abstract

Vanilla is a high-value plantation crop that is commonly propagated vegetatively through stem cuttings. The success of stem cutting growth is influenced by several factors, one of which is the quality of the growing medium. Compost derived from different sources of organic waste has the potential to improve the physical, chemical, and biological properties of the growing medium, thereby supporting the early growth of vanilla cuttings. This study aimed to evaluate the effect of different compost media compositions on the growth of vanilla stem cuttings and to determine the most effective compost composition. The research was conducted in Nagari Toboh Ketek, Enam Lingkung District, Padang Pariaman Regency, West Sumatra, from December 2025 to March 2026. The experiment was arranged in a Completely Randomized Design (CRD) with three treatments, namely household waste compost, market waste compost, and agricultural waste compost, with four replications. Data were analysed using analysis of variance (ANOVA), followed by Duncan's New Multiple Range Test (DNMRT) at the 5% significance level when significant differences were detected. The results showed that compost media composition significantly affected shoot length and shoot diameter but had no significant effect on time to shoot emergence, cutting survival percentage, leaf length, leaf width, number of leaves, root length, total biomass weight, and marketable seedlings. Household waste compost produced the best growth performance and therefore has the potential to be used as an effective growing medium for supporting the early growth of vanilla stem cuttings.

Keywords: compost, growing medium, organic waste, stem cutting growth, vanilla