

ABSTRAK

RESPONS PERTUMBUHAN BIBIT LADA (*Piper nigrum* L.) VARIETAS NATAR 1 TERHADAP PEMBERIAN KOMPOS AEROB

Oleh

Ike Juliana Putri Pangaribuan

Keterbatasan ketersediaan bibit unggul dan media tanam menjadi salah satu penyebab turunnya produksi lada di Indonesia. Pemberian kompos aerob sebagai campuran media tanam dapat meningkatkan ketersediaan nutrisi dan mampu mendukung pertumbuhan bibit secara optimal. Penelitian ini bertujuan untuk mengetahui dosis kompos aerob terbaik pada media tanam yang dapat menghasilkan pertumbuhan bibit lada (*Piper nigrum* L.) varietas Natar 1 terbaik. Penelitian dilaksanakan di Rumah Kaca, Fakultas Pertanian, Universitas Lampung pada bulan Mei hingga September 2025. Penelitian disusun menggunakan Rancangan Acak Kelompok (RAK) dengan tiga perlakuan tanah : kompos aerob, yaitu P1 (1:0), P2 (1:1), dan P3 (2:1), masing-masing diulang sebanyak sembilan kali. Data dianalisis menggunakan analisis ragam dan dilanjutkan dengan uji Beda Nyata Jujur (BNJ) pada taraf 5%. Hasil penelitian menunjukkan bahwa perlakuan P2 (1:1) dan P3 (2:1) memberikan respon pertumbuhan lebih baik, ditunjukkan dengan peningkatan panjang cabang terpanjang, total panjang cabang, total jumlah daun, luas daun, tingkat kehijauan daun, diameter batang, diameter cabang pada tunas terpanjang, bobot segar dan kering tajuk, volume akar, serta bobot segar dan kering akar dibandingkan dengan kontrol (P1).

Kata kunci: lada, media tanam, kompos aerob, dosis

ABSTRACT

GROWTH RESPONSE OF NATAR 1 PEPPER SEEDLINGS (*Piper nigrum* L.) TO THE APPLICATION OF AEROBIC COMPOST

By

Ike Juliana Putri Pangaribuan

*Limited availability of superior seedlings and suitable growing media is one of the factors contributing to the decline in pepper production in Indonesia. The application of aerobic compost as a component of the growing medium can increase nutrient availability and support optimal seedling growth. This study aimed to determine the best dose of aerobic compost in the growing medium to produce optimal growth of pepper (*Piper nigrum* L.) seedlings of the Natar 1 variety. The research was conducted in a greenhouse at the Faculty of Agriculture, University of Lampung, from May to September 2025. The experiment was arranged using a Randomized Block Design (RBD) with three soil-to-aerobic compost ratio treatments: P1 (1:0), P2 (1:1), and P3 (2:1), each replicated nine times. Data were analyzed using analysis of variance (ANOVA) followed by the Honestly Significant Difference (HSD) test at a 5% significance level. The results showed that treatments P2 (1:1) and P3 (2:1) produced better growth responses, as indicated by increases in the length of the longest branch, total branch length, total number of leaves, leaf area, leaf greenness level, stem diameter, branch diameter of the longest shoot, shoot fresh and dry weight, root volume, as well as root fresh and dry weight compared to the control (P1).*

Keywords: *pepper, growing medium, aerobic compost, doses*