

Lelya Mayzaroh 180311100059. Pengaruh Perbedaan Konsentrasi *Trichoderma* sp. Terhadap Perkecambahan dan Pertumbuhan Bibit tanaman Kakao (*Theobroma cacao* L.). Dibimbing oleh **Ir. Sinar suryawati, M.Si.**

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh perbedaan konsentrasi suspensi *Trichoderma* sp. terhadap daya kecambah dan potensi tumbuh maksimum benih serta pertumbuhan bibit tanaman kakao (*Theobroma cacao* L.). Penelitian dilaksanakan sejak Januari hingga Maret 2022, di Balai Besar Perbenihan dan Proteksi Tanaman Perkebunan Surabaya Jawa Timur, menggunakan Rancangan Acak Lengkap dengan perlakuan perendaman benih dalam suspensi *Trichoderma* sp. selama 24 jam pada berbagai konsentrasi. Konsentrasi suspensi *Trichoderma* sp. yang diuji terdiri dari lima taraf yaitu tanpa pemberian suspensi *Trichoderma* sp. (P0), pemberian suspensi *Trichoderma* sp. dengan konsentrasi 1×10^{-5} (P1), pemberian suspensi *Trichoderma* sp. dengan konsentrasi 1×10^{-4} (P2), pemberian suspensi *Trichoderma* sp. dengan konsentrasi 1×10^{-3} (P3), dan pemberian suspensi *Trichoderma* sp. dengan konsentrasi 1×10^{-2} (P4). Masing-masing perlakuan diberikan pada benih kakao varietas ICCRI 08H, diulang lima kali. Hasil penelitian menunjukkan bahwa perlakuan pemberian suspensi *Trichoderma* sp. berpengaruh nyata terhadap daya kecambah benih, tinggi tanaman, jumlah daun dan panjang akar bibit tanaman kakao namun tidak berpengaruh nyata pada potensi tumbuh maksimum benih kakao. Perlakuan suspensi *Trichoderma* sp. dengan konsentrasi 1×10^{-2} (P4) menghasilkan rata-rata tertinggi dibandingkan perlakuan lainnya.

Kata Kunci : Kakao, *Trichoderma* sp., Perkecambahan, Pertumbuhan.

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ABSTRACT

This study aims to determine the effect of differences in concentration of *Trichoderma* sp. on germination and maximum growth potential of seeds and the growth of cacao (*Theobroma cacao* L.) seedlings. The study was conducted from January to March 2022, at the Center for Plant Seed and Plant Protection in Surabaya, East Java, using a completely randomized design with the treatment of soaking the seeds in suspension of *Trichoderma* sp. for 24 hours at various concentrations. Suspension concentration of *Trichoderma* sp. tested consisted of five levels, namely without suspension *Trichoderma* sp. (P0), suspension of *Trichoderma* sp. with a concentration of 1×10^{-5} (P1), the suspension of *Trichoderma* sp. with a concentration of 1×10^{-4} (P2), suspension of *Trichoderma* sp. with a concentration of 1×10^{-3} (P3), and suspension of *Trichoderma* sp. with a concentration of 1×10^{-2} (P4). Each treatment was given to cocoa seeds of ICCRI 08H variety, repeated five times. The results showed that the treatment with *Trichoderma* sp. had a significant effect on seed germination, plant height, number of leaves and root length of cacao seeds but did not significantly affect the maximum growth potential of cocoa seeds. Suspension treatment of *Trichoderma* sp. with a concentration of 1×10^{-2} (P4) resulted in the highest average compared to other treatments.

Keywords : Cocoa, *Trichoderma* sp., Germination, Growth.