

INTISARI

Penurunan ketersediaan dan kualitas tanah untuk budidaya pertanian semakin menurun, sehingga diperlukan alternatif media tanam selain tanah. Penggunaan limbah produksi hasil pertanian seperti *cocopeat* dan arang sekam dapat dijadikan alternatif media tanam untuk substitusi tanah. Tujuan penelitian adalah mempelajari pengaruh perbedaan komposisi media tanam *cocopeat* dan arang sekam serta menentukan komposisi media tanam *cocopeat* dan arang sekam terbaik untuk pertumbuhan dan hasil sawi hijau. Penelitian dilaksanakan pada bulan Februari-Maret 2024 di Kebun Tridharma Fakultas Pertanian UGM, Banguntapan, Bantul, D.I. Yogyakarta. Penelitian menggunakan Rancangan Acak Kelompok Lengkap (RAKL) faktor tunggal dengan tiga blok sebagai ulangan. Perlakuan terdiri atas media tanah, 100 % *cocopeat*, 75 % *cocopeat* : 25 % arang sekam, 50 % *cocopeat* : 50 % arang sekam, 25 % *cocopeat* : 75% arang sekam, dan 100% arang sekam. Hasil penelitian menunjukkan bahwa terdapat pengaruh komposisi media tanam terhadap bobot segar dan bobot kering, luas daun, serta kandungan klorofil sawi hijau. Bobot segar ekonomis dan produktivitas sawi hijau masih lebih rendah dibandingkan dengan perlakuan 100 % tanah. Namun dilihat dari kualitas, perlakuan 25 % *cocopeat* : 75 % arang sekam mampu memberikan hasil kandungan vitamin C lebih baik dari kontrol 100 % tanah sebesar 0,39 %.

Kata kunci: *soilless*; *cocopeat*; arang sekam; komposisi; hasil

ABSTRACT

Decreasing availability of soil for agriculture is becoming increasingly reduced, thus requiring alternative growing media besides soil. Using agricultural waste products such as cocopeat and charcoal can be considered as options by adjusting the composition of the two-growing media. The purpose of this research is to study the influence of different compositions of cocopeat and charcoal growing media and determine the best composition for the growth and yield of green mustard. The research was conducted from February to March 2024 at the Rumah Kawat Kebun Tridharma Faculty of Agriculture UGM, Banguntapan, Bantul. The study used a Completely Randomized Block Design (CRBD) with a single factor and three blocks as repetitions. The treatments given were control (M0), 100 % cocopeat (M1), 75 % cocopeat : 25 % charcoal (M2), 50 % cocopeat : 50 % charcoal (M3), 25 % cocopeat : 75 % charcoal (M4), and 100 % charcoal (M5). There is an influence of the growing media composition on the growth and yield, with the impact observed in the fresh weight and dry weight, leaf area, and chlorophyll content of green mustard. The economic fresh weight and productivity of green mustard are still lower compared to the control treatment of 100 % soil. However, in terms of quality, the treatment with 25 % cocopeat: 75 % rice husk charcoal provides better vitamin C content than the 100 % soil control, with an increase of 0.39 %.

Keywords: soilless; cocopeat; charcoal; composition; yield.