

Enik Krismawati (NPM 200311100034). Pengaruh Komposisi Media Tanam Dan Pupuk Organik Cair Air Cucian Beras Terhadap Pertumbuhan Dan Hasil Tanaman Bayam Merah (*Amaranthus tricolor* L.). Dibimbing oleh: Dr. Achmad Amzeri, S.P., M.P

ABSTRAK

Permintaan sayuran bayam semakin meningkat, namun produksinya masih rendah diduga karena teknik budidaya yang kurang tepat dan kurangnya ketersediaan unsur hara. Penelitian ini dilakukan untuk mengetahui pengaruh komposisi media tanam dan pupuk organik cair air cucian beras terhadap pertumbuhan dan hasil tanaman bayam merah (*Amaranthus tricolor* L.) yang ditanam pada polybag. Penelitian dilaksanakan di Rumah Kaca dan Laboratorium Program Studi Agroekoteknologi, Universitas Trunojoyo Madura. Penelitian dilaksanakan pada bulan Februari sampai Juni 2024. Penelitian ini menggunakan percobaan faktorial 3x3 dengan Rancangan Acak Lengkap (RAL). Faktor pertama adalah komposisi media tanam yang terdiri dari tiga taraf yaitu: tanah dan arang sekam 1:1 (M1), tanah dan pupuk kandang kambing 1:1 (M2), dan tanah, arang sekam dan pupuk kandang kambing 1:1:1 (M3). Faktor kedua adalah konsentrasi pupuk organik cair air cucian beras yang terdiri dari tiga taraf yaitu konsentrasi 0% (P0), konsentrasi 50% (P1) dan konsentrasi 100% (P2). Diulang sebanyak 3 kali. Parameter pengamatan meliputi tinggi tanaman, jumlah daun, panjang akar, bobot basah, bobot kering dan hasil ekonomis. Analisis data menggunakan sidik ragam taraf 5% dilanjutkan dengan uji Jarak Berganda Duncan pada taraf $\alpha = 5\%$. Hasil penelitian menunjukkan bahwa komposisi media tanam berpengaruh nyata pada panjang akar, bobot basah, bobot kering dan hasil ekonomis, dengan perlakuan terbaik pada M3 yang tidak berbeda dengan M2. Perlakuan pupuk organik cair air cucian beras berpengaruh nyata pada tinggi tanaman, jumlah daun, bobot basah dan bobot kering tanaman, dengan perlakuan terbaik pada P0. Terdapat interaksi antara komposisi media tanam dan pupuk organik cair air cucian beras terhadap parameter tinggi tanaman pada umur 14 HST dan jumlah daun pada umur 35 HST, dengan perlakuan terbaik pada M3P0.

Kata kunci: Bayam merah, komposisi media tanam, pupuk organik cair

Enik Krismawati (NPM 200311100034). The Effect of Planting Media Composition and Liquid Organic Fertilizer in Rice Washing Water on the Growth and Yield of Red Spinach (*Amaranthus tricolor* L.). Supervised by: Dr. Achmad Amzeri, S.P., M.P

ABSTRACT

*Demand for spinach vegetables is increasing, but production is thought to be still low due to inappropriate cultivation techniques and nutrient availability. This research was conducted to determine the effect of the composition of planting media and liquid organic fertilizer from rice washing water on the growth and yield of red spinach plants (*Amaranthus tricolor* L.) planted in polybags. The research was carried out in the Greenhouse and Laboratory of the Agroecotechnology Study Program, Trunojoyo University, Madura. The research was carried out from February to June 2024. This research used a 3x3 factorial experiment with a Completely Randomized Design (CRD). The first factor is the composition of the planting medium which consists of three levels, namely: soil and husk charcoal 1:1 (M1), soil and goat manure 1:1 (M2), and soil, husk charcoal and goat manure 1:1:1 (M3). The second factor is the concentration of liquid organic fertilizer in rice washing water which consists of three levels, namely 0% concentration (P0), 50% concentration (P1) and 100% concentration (P2). Repeated 3 times. Observation parameters include plant height, number of leaves, root length, wet weight, dry weight and economic yield. Data analysis used variance at a level of 5% followed by Duncan's Multiple Range test at a level of $\alpha = 5\%$. The results showed that the composition of the planting medium had a significant effect on root length, wet weight, dry weight and economic yield, with the best treatment on M3 being no different from M2. The liquid organic fertilizer treatment with rice washing water had a significant effect on plant height, number of leaves, wet weight and dry weight of plants, with the best treatment at P0. There was an interaction between the composition of the planting media and liquid organic fertilizer from rice washing water on the parameters of plant height at 14 DAP and number of leaves at 35 DAP, with the best treatment at M3P0.*

Key words: Liquid organic fertilizer, planting media composition, red spinach