

INTISARI

Penggunaan *topsoil* sebagai media tanam pada budidaya cabai rawit, hendaknya mulai dikurangi karena kualitas dan kuantitasnya mulai terdegradasi. Penelitian ini bertujuan mendapatkan jenis dan komposisi media tanam untuk mensubstitusi sebagian *topsoil* yang dapat mendukung pertumbuhan dan hasil tanaman cabai rawit (*Capsicum frutescens* L.). Penelitian dilakukan di Pusat Inovasi Agroteknologi (PIAT) Universitas Gadjah Mada di Kalitirto, Berbah, Sleman, D.I. Yogyakarta, Laboratorium Manajemen Produksi Tanaman, dan Laboratorium Ilmu Tanah Umum, Fakultas Pertanian UGM pada bulan April-Desember 2018. Rancangan yang digunakan yaitu Rancangan Acak Kelompok Lengkap (RAKL) dengan 4 blok sebagai ulangan. Penelitian ini terdiri dari 7 macam perlakuan komposisi media tanam (kombinasi dari tanah *topsoil*, pupuk limbah kotoran ayam, pasir, kokopit, arang sekam) dengan 1 perlakuan kontrol (tanah *topsoil*:pupuk limbah kotoran ayam (2:1)). Variabel yang diamati berupa variabel sifat kimia tanah, pertumbuhan tanaman, komponen hasil tanaman cabai rawit. Pengamatan variabel hasil dilakukan saat fase generatif maksimum (150 hari setelah pindah tanam). Data yang diperoleh dianalisis varians (ANOVA) dengan $\alpha=5\%$, dilanjutkan dengan uji HSD-Tukey. Hasil penelitian menunjukkan komposisi media tanam yang diujikan menghasilkan pertumbuhan dan hasil tanaman cabai rawit yang tidak berbeda nyata. Substitusi sepertiga *topsoil* menggunakan pasir, arang sekam, kokopit, maupun campuran dari bahan-bahan tersebut dapat mendukung pertumbuhan dan hasil cabai rawit, khususnya di lahan-lahan sub optimal maupun perkotaan.

Kata kunci: *topsoil*, media tanam, *Capsicum frutescens* L., hasil, bahan organik

ABSTRACT

Topsoil utilization for chili pepper cultivation on pot scale, should be reduced due to its quantities and qualities degradation. This research was aimed to determine the type, composition of planting media that can substitute a third of topsoil from planting media also support growth and yield of chili pepper. The experiment conducted at the Agrotechnology Innovation Center Universitas Gadjah Mada in Kalitirto Sub District Regency, Berbah District Regency, Sleman, Special Province of Yogyakarta, Crop Production Management Laboratory, and General Soil Science Laboratory, Faculty of Agriculture UGM started from April-December 2018. This research was arranged in Randomized Complete Block Design (RCBD) with 4 blocks as replications, with 7 composition treatments (consist of topsoil, chicken manure waste, sand, coco peat, husk charcoal) with 1 control treatments (topsoil:chicken manure waste (2:1). The variables observed were variable soil chemical properties, crop growth, and crop yield components of chili pepper. Crop yields components variable observed during the maximum generative phase (150 days after transplanting). The data obtained were analyzed for variance (ANOVA) with $\alpha=5\%$, followed by the HSD Tukey test. The results showed the growth and crop yields of chili pepper that planted on different composition of planting media were not significant. Substituting one third of *topsoil* by utilizing sand, husk charcoal, coco peat, or combining all of them, could support growth and yield of chili pepper, especially at sub optimal terrains or for urban farming purpose.

Keywords: topsoil, planting media, *Capsicum frutescens* L., yield, organic matters.