

ABSTRAK

Muhamad Fajar Ramadhan. 2014. Pengaruh Aplikasi Ragam Bahan Organik dan FMA terhadap Perbaikan Sifat Kimia Tanah Pasca Galian C, Pertumbuhan dan Hasil Tanaman Cabai (*Capsicum Annum* L.) Varietas Landung. Di bawah bimbingan Cecep Hidayat dan Sofiya Hasani.

Penelitian yang bertujuan untuk mengetahui pengaruh bahan organik (kompos gamal, dan asam humat) serta FMA terhadap sifat kimia tanah dan pertumbuhan serta hasil tanaman cabai telah dilaksanakan di Gapoktan Simpay Tampomas, Sumedang sejak bulan Februari sampai dengan Juli 2014. Metode yang digunakan merupakan metode eksperimental berupa Rancangan Acak Kelompok (RAK), dengan 8, perlakuan yang diulang 4 kali a0 = kontrol, a1 = kompos gamal 5 t ha⁻¹, a2 = kompos gamal 10 t ha⁻¹, a3 = aplikasi FMA (*Glomus* sp. + *Gigaspora* sp.+ *Aclauspora* sp.), a4 = asam humat, a5 = kompos gamal 5 t ha⁻¹ + FMA , a6 = kompos gamal 10 t ha⁻¹ + FMA, dan a7 = aplikasi asam humat + FMA. Pengujian lanjut dilakukan dengan *Duncan Multiple Range Test* (DMRT). Hasil penelitian menunjukkan bahwa aplikasi kompos gamal, asam humat, dan FMA tidak berpengaruh nyata terhadap sifat kimia tanah (C-organik, N-total, dan P-total), diameter batang, bobot kering brangkas dan bobot segar buah. Namun berpengaruh nyata pada tinggi tanaman cabai. Pengaplikasian bahan organik hingga 10 t ha⁻¹, asam humat, dan FMA belum berpengaruh nyata terhadap perbaikan kesuburan tanah pasca galian C (tambang pasir), karena kondisi tanah pasca galian C yang didominasi 75% pasir dan 50% batuan.

Kata kunci : Bahan organik, Fungi mikoriza arbuskula, Sifat kimia tanah, Tanah pasca galian C

ABSTRACT

Muhamad Fajar Ramadhan. 2014. Effect of Various Organic Matters and Arbuscular Mychoryza Fungi Applications on Reclamation of Post Excavation C Soil Chemical Properties, Growth and Yield of Chili (*Capsicum annum* L.) Var. Landung. Supervised by Cecep Hidayat and Sofiya Hasani.

The study aimed to determine the effect of organic matter (gliricidia compost, and humic acid) also AMF on chemical properties of soil and yield of chili plants had been held in Gapoktan Simpay Tampomas, Sumedang from February to July 2014. The method was an experimental method a randomized block design (RBD), with 8 treatment and repeated 4 times a0 = control, a1 = gliricidia compost application 5 t ha⁻¹, a2 = gliricidia compost application 10 t ha⁻¹, a3 = application AMF (*Glomus* sp. + *Gigaspora* sp. + *Aclauspora* sp.), a4 = application humic acid, a5 = gliricidia compost application 5 tons ha⁻¹ + AMF, a6 = gliricidia compost application 10 tons ha⁻¹ + AMF, and a7 = application humic acid + AMF. Further testing was done by Duncan Multiple Range Test (DMRT). The results showed that the application of gliricidia compost, humic acid, and AMF did not significantly affect the chemical properties of soil (C-organic, P-total, and N-total), stem diameter, dry weight of plant and fresh weight of fruit. But significant on plant height of chili. Application of organic matter up to 10 tons ha⁻¹, humic acid, and AMF had not significantly affect fertility improvement of post-excavation soil C (sand mining), because the soil C dominated by 75% sand and 50% rock.

Key words : Arbuscular mycorrhizal fungi, organic matter, soil after sand mining, soil chemical properties,



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