

PENGARUH MACAM DAN TAKARAN PUPUK KANDANG TERHADAP PERTUMBUHAN DAN HASIL JAGUNG MANIS DI VERTISOL

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INTISARI

Jagung termasuk bahan pangan penting karena merupakan komoditas dan sumber karbohidrat utama kedua setelah beras. Produksi jagung manis yang masih rendah di Indonesia disebabkan oleh kandungan bahan organik yang rendah pada lahan-lahan pertanian di Indonesia. Pemberian pupuk kandang selain dapat menambah tersedianya unsur hara, juga dapat memperbaiki sifat fisik tanah. Vertisol merupakan jenis tanah yang memiliki beberapa kondisi sifat fisik yang tidak dikehendaki baik dari segi pertanian maupun teknik. Penelitian ini dilaksanakan di Lahan persawahan, Argomulyo, Sedayu, Bantul, Daerah Istimewa Yogyakarta. Penelitian dilaksanakan mulai bulan Maret 2019 sampai dengan Mei 2019. Lokasi penelitian berada pada ketinggian 114 meter dari permukaan laut dengan jenis tanah vertisol. Penelitian ini merupakan percobaan faktor tunggal dengan 10 aras perlakuan. Unit percobaan disusun dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan 3 ulangan. Perlakuan yang diujikan meliputi yaitu : (1) P1 = Pupuk kandang sapi takaran 10 ton/ha (2) P2 = Pupuk kandang sapi takaran 20 ton/ha (3) P3 = Pupuk kandang sapi takaran 30 ton/ha (4) P4 = Pupuk kandang kambing takaran 10 ton/ha (5) P5 = Pupuk kandang kambing takaran 20 ton/ha (6) P6 = Pupuk kandang kambing takaran 30 ton/ha (7) P7 = Pupuk kandang ayam takaran 10 ton/ha (8) P8 = Pupuk kandang ayam takaran 20 ton/ha (9) P9 = Pupuk kandang ayam takaran 30 ton/ha (10) P0 = Urea 300 kg/ha, SP-36 150 kg/ha, KCl 100 kg/ha (kontrol). Hasil penelitian menunjukkan macam dan takaran pupuk kandang berpengaruh tidak nyata pada pertumbuhan tetapi berpengaruh nyata pada hasil jagung manis di lahan vertisol. Perlakuan pupuk kandang sapi 20 ton/ha merupakan perlakuan yang menunjukkan hasil jagung manis tongkol berkelobot lebih tinggi dibanding pupuk kandang sapi 10 ton/ha, pupuk kandang kambing 30 ton/ha, pupuk kandang ayam 10, 20, 30 ton/ha dan kontrol.

Kata kunci : jagung manis, pupuk kandang, vertisol

INFLUENCE OF KINDS AND DOSE OF MANURE ON GROWTH AND YIELD OF SWEET CORN IN VERTISOL

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ABSTRACT

Corn includes important foodstuffs because it is a commodity and the second major carbohydrate source after rice. The low production of sweet corn in Indonesia is caused by the low content of organic matter on agricultural lands in Indonesia. Addition of manure in plant nutrient and also improves soil physical properties. Vertisol is a type of soil that has some condition of physical properties that are not desirable both in terms of agriculture and engineering. This research aims to know the influence of kinds and dose of manure on growth and yield of sweet corn in vertisol land. Research was conducted in rice fields at Argomulyo, Sedayu, Bantul, Special Region of Yogyakarta on 114 m altitude and vertisol soil. The 10 level of treatments tested in this research were : (1) P1 = cow manure with 10 ton ha⁻¹ (2) P2 = cow manure with 20 ton ha⁻¹ (3) P3 = cow manure with 30 tons ha⁻¹ (4) P4 = goat manure with 10 ton ha⁻¹ (5) P5 = goat manure with 20 tons ha⁻¹ (6) P6 = goat manure with 30 ton ha⁻¹ (7) P7 = chicken manure with 10 tons ha⁻¹ (8) P8 = chicken manure with 20 ton ha⁻¹ (9) P9 = chicken manure with 30 tons ha⁻¹ (10) P0 = 300 Urea kg ha⁻¹, 150 SP-36 kg/ha, 100 KCl kg ha⁻¹ as control treatment. All treatments were arranged in Randomized Complete Block Design with three replications. Results of this research showed that kinds and dose of manure not significantly difference on the plant growth of sweet corn, but significantly difference on husked ear. Cow manure 20 ton ha⁻¹ treatment showed higher husked yield of sweet corn than cow manure 10 ton ha⁻¹, goat manure 30 ton ha⁻¹, chicken manure 10, 20, 30 ton ha⁻¹ and control.

Keywords: sweet corn, manure, vertisol

