

ABSTRAK

PENGARUH BERBAGAI MACAM PUPUK KANDANG TERHADAP PERTUMBUHAN DAN PRODUKSI TANAMAN TOMAT (*Solanum Lycopersicum M*) PADA TANAH INCEPTISOL

TERNATE

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Penelitian ini bertujuan untuk mengetahui pengaruh berbagai macam pupuk kandang terhadap pertumbuhan dan produksi tanaman tomat. Penelitian ini dilaksanakan di lahan UPTD Agribisnis Peternakan dan Pembibitan Ternak di Kelurahan Sasa, Kecamatan Ternate Selatan dan analisis tanah awal di Laboratorium Kimia dan Kesuburan Tanah Universitas Hasanuddin, Makassar yang berlangsung dari bulan Maret – Juli 2020. Hipotesis dari penelitian ini adalah Pemberian macam pupuk kandang yang berbeda akan memberikan pengaruh yang berbeda terhadap pertumbuhan dan produksi tanaman tomat (*Solanum lycopersicum M*) di Inceptisol Ternate.

Rancangan percobaan pada penelitian ini menggunakan Rancangan Acak Kelompok (RAK) faktorial dengan satu faktor dan empat kali ulangan $2 \times 4 \times 4$ sehingga memperoleh 16 unit percobaan. Faktor pertama yaitu pengaruh berbagai macam pupuk kandang tanpa olah tanah (H0) pupuk kandang ayam (H1) = 20 ton/ha pupuk kandang kambing (H2) = 20 ton/ha pupuk Of Varian), apabila terdapat pengaruh nyata dari perlakuan maka dilanjutkan dengan uji BNT α 5%. Perlakuan kombinasi berbagai macam pupuk kandang sapi (H3) = 20 ton/ha. Teknik analisis data menggunakan ANOVA (Analisis tidak berpengaruh nyata terhadap tinggi tanaman pada umur 10 HST, sedangkan pada umur 20 dan 30 HST memberikan pengaruh nyata. Kesimpulan dari penelitian ini adalah: (a) Pupuk kandang memberikan pengaruh nyata terhadap parameter tinggi tanaman 10, 20 HST, jumlah cabang pada umur 20, 30 HST dan berat buah saat panen. (b) Pupuk kandang sapi (H3) memberikan pengaruh yang baik terhadap parameter tinggi tanaman jumlah cabang dan berat buah tanaman tomat. (c) Produksi berat segar buah tomat tertinggi yaitu 5,74 ton/ha dan yang terendah yaitu 2,66 ton/ha.

Kata Kunci: Media Tanah, Pupuk Kandang, Tanaman Tomat, dan pH Tanah.

ABSTRACT

THE EFFECT OF VARIOUS KINDS OF KOP FERTILIZER ON THE GROWTH AND PRODUCTION OF TOMATO PLANT (*Solanum Lycopersicum M*) IN INCEPTISOL SOIL TERNATE

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This study aims to determine the effect of various kinds of manure on the growth and production of tomato plants. This research was conducted on the land of the UPTD Agribusiness Animal Husbandry and Livestock Breeding in Sasa Village, South Ternate District and the initial soil analysis at the Laboratory of Chemistry and Soil Fertility, Hasanuddin University, Makassar which took place from March to July 2020. The hypothesis of this study was the provision of manure. different effects will have different effects on the growth and production of tomato (*Solanum lycopersicum M*) in Inceptisol Ternate.

The experimental design in this study used a randomized block design (RBD) with one factor and four replications of 2 x 4 x 4 to obtain 16 experimental units. The first factor is the influence of various kinds of manure without tillage (H0) chicken manure (H1) = 20 tonnes / ha goat manure (H2) = 20 tonnes / ha of fertilizer of variance), if there is a significant effect of the treatment then proceed with LSD test α 5%. Combination treatment of various kinds of cow manure (H3) = 20 tons / ha. The data analysis technique used ANOVA (analysis had no significant effect on plant height at the age of 10 DAS, while at the age of 20 and 30 DAS had a significant effect. The conclusions of this study were: (a) Manure had a significant effect on plant height parameters 10, 20 HST, the number of branches at the age of 20, 30 DAS and fruit weight at harvest. (B) Cow manure (H3) has a good effect on plant height parameters, number of branches and fruit weight of tomato plants. (C) The highest production of fresh tomato fruit weight namely 5.74 tonnes / ha and the lowest was 2.66 tonnes / ha.

Keywords: Soil Media, Manure, Tomato Plants, and Soil pH.