

PENGARUH DOSIS PUPUK KASCIING DAN NPK TERHADAP PERTUMBUHAN DAN HASIL JAGUNG MANIS

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INTISARI

Jagung manis atau yang sering disebut *sweet corn* dikenal di Indonesia pada awal 1980 melalui hasil persilangan. Sejak itu jagung manis di Indonesia mulai ditanam secara komersial karena penanamannya yang sederhana dan digemari oleh masyarakat, kandungan gizi yang terdapat pada jagung manis adalah glukosa, karbohidrat, protein dan lemak. Penggunaan pupuk sebagai bahan nutrisi tambahan untuk tanaman jagung merupakan salah satu usaha dalam meningkatkan pertumbuhan dan produksi jagung, sehingga diharapkan pemberian pupuk kasciing dan NPK dapat mengoptimalkan hasil jagung manis. Penelitian ini bertujuan untuk mengetahui pengaruh pupuk kasciing dan NPK (16:16:16) terhadap pertumbuhan dan hasil jagung manis. Penelitian dilaksanakan pada bulan Maret sampai Mei 2019, di Desa Agrotejo, Sedayu, Bantul, Daerah Istimewa Yogyakarta pada ketinggian 100 m di atas permukaan laut, jenis tanah vertisol. Penelitian berupa percobaan factorial dengan dosis kasciing dan dosis NPK sebagai perlakuan. Ada 3 aras dosis kasciing yakni 4 ton/ha, 7 ton/ha, dan 10 ton/ha, dan 3 aras dosis NPK yakni 250 kg/ha, 350 kg/ha, dan 400 kg/ha. Seluruh kombinasi perlakuan + 1 kontrol (dipupuk urea 300 kg/ha, SP-36 150 kg/ha, KCl 100 kg/ha, kandang sapi 20 ton/ha), disusun dalam Rancangan Acak Kelompok Lengkap 3 ulangan. Setiap percobaan terdiri atas 10 polybag tanaman, 5 tanaman dipilih secara acak sebagai sampel. Variable-variabel yang diamati meliputi tinggi tanaman (cm), diameter batang (mm), jumlah daun (helai), volume akar (ml), bobot segar tanaman (gram), bobot kering tanaman (gram), panjang tongkol berkelobot (cm), panjang tongkol tanpa kelobot (cm), diameter tongkol berkelobot (mm), diameter tongkol tanpa kelobot (mm), bobot tongkol berkelobot (gram), dan bobot tongkol tanpa kelobot (gram). Hasil penelitian ini menunjukkan interaksi antar perlakuan tidak nyata terhadap pertumbuhan maupun hasil jagung manis, dan kombinasi perlakuan tersebut juga tidak menunjukkan perbedaan nyata dengan kontrol. Rerata tinggi tanaman jagung manis 184,03 cm, bobot segar 410,19 gram, bobot kering 105,00 gram, bobot tongkol berkelobot 347,99 gram, bobot tongkol tanpa kelobot 252,08 gram pada kombinasi perlakuan dosis kasciing dan dosis NPK dalam penelitian ini.

Kata kunci: jagung manis, pupuk kasciing dan pupuk NPK.

EFFECT OF KASCING FERTILIZER AND NPK DOSAGE ON GROWTH AND YEILD OF SWEETCORN

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Abstract

Sweet corn or often called sweet corn was known in Indonesia in the early 1980s through crossing. Since then sweet corn in Indonesia began to be planted commercially because of its simple planting and was favored by the community, the nutritional content contained in sweet corn is glucose, carbohydrates, protein and fat. The use of fertilizer as an additional nutritional ingredient for corn is one of the efforts in increasing the growth and production of corn, so it is expected that the application of kascing fertilizer and NPK can optimize the yield of sweet corn. This study aims to determine the effect of vermicompost fertilizer and NPK (16:16:16) on the growth and yield of sweet corn. The study was conducted from March to May 2019, in the Agrotejo Village, Sedayu, Bantul, Special Region of Yogyakarta at an altitude of 100 m above sea level, vertisol soil types. The research was in the form of a factorial experiment with vermicompost dosage and NPK dose as treatment. There are 3 levels of vermicompost dosage namely 4 tons / ha, 7 tons / ha, and 10 tons / ha, and 3 levels of NPK dosages namely 250 kg / ha, 350 kg / ha, and 400 kg / ha. All treatment combinations + 1 control (urea 300 kg / ha, SP-36 150 kg / ha, KCL 100 kg / ha, 20 tons / ha cow manure), were arranged in a Randomized Complete Block Design with 3 replications. Each experimental unit consisted of 10 plant polybags, 5 plants were randomly selected as samples. Variables observed included plant height (cm), stem diameter (mm), number of leaves (strands), root volume (ml), plant fresh weight (gram), plant dry weight (gram), ear length (cm), husked ear length (cm), ear diameter (mm), husked ear diameter (mm), ear weight (gram), and husked ear weight (gram). The results of this study showed that the interaction between treatments was not significant on the growth or yield of sweet corn, and the combination of these treatments also showed not significantly difference with the control. The plant average of height of was 184.03 cm, plant fresh weight was 410.19 grams, plant dry weight was 105.00 grams, ear weight 347.99 gram, husked ear weight 252.08 gram in treatment combination of vermicompost and NPK dose in this research.

Keywords: sweet corn, vermicompost fertilizer and NPK fertilizer.