

***The Application of Planth Growth Promotting Fungi and Chicken Dung Fertilizer
on the Growth and Production of Burdek Maize***

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ABSTRACT

This study aims at finding out the influence of application of PGPF and chicken dung fertilizer on the growth and production of Burdek maize. This study was conducted on Tegal Gede Village, Sumbersari, Jember Regency, East Java, situated at the height of approximately 89 meters above sea level. It was held on November 2018 until February 2019. This research employed Randomized Block Design by using 2 factors. The first factor was the application of PGPF (P), which consisted of 3 treatment levels : no PGPF applied (F0), 4 grams/plant of PGPF applied (F1) and, 5 grams/plant of PGPF applied (F2). Meanwhile, the second factor was the application of chicken dung fertilizer, which consisted of 4 treatment levels : no chicken dung fertilizer applied (P0), 29 grams/plant of chicken dung fertilizer applied (P1), 59 grams/plant of chicken dung fertilizer applied (P2), and 88 grams/plant of chicken dung fertilizer applied (P3). The result of this study revealed that the best treatment was the application of 5 grams/plant of PGPF which showed significant effect on diameter of corncob. In addition, the application of chicken dung fertilizer at the dosage of 88 grams/plant showed significant effect on stem diameter 40 days after initial planting, corncob's gross weight per sample, corncob's dry weight per sample, kernel's weight per sample, kernel's weight per unit and the weight of every 100 grains, respectively.

Keywords : *Burdek Maize, Planth Growth Promotting Fungi, chicken dung fertilizer*

Translated by,



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Pengaruh Dosis *Planth Growth Promotting Fungi* Dan Dosis Pupuk Kotoran Ayam Terhadap Pertumbuhan Dan Produksi Jagung Varietas Burdek

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ABSTRAK

Penelitian ini untuk mengetahui pengaruh dari Pemanfaatan PGPF (*Planth Growth Promotting Fungi*) Dan Pupuk Kotoran Ayam Terhadap Pertumbuhan Dan Produksi Jagung varietas Burdek. Penelitian ini dilaksanakan di Desa Tegal Gede, Sumbersari, Kabupaten Jember Provinsi Jawa Timur dengan ketinggian 89 mdpl. Waktu pelaksanaan November 2018 sampai dengan Februari 2019. Metode penelitian menggunakan Rancangan Acak Kelompok (RAK) 2 faktorial. Faktor pertama adalah pemberian PGPF (P) dengan 3 taraf: tanpa pemberian PGPF (F0), pemberian PGPF 4 gram/tanaman (F1), pemberian PGPF 5 gram/tanaman (F2). Faktor kedua pemberian pupuk kandang ayam (P) dengan 4 taraf yaitu tanpa pemberian pupuk kandang ayam (P0), pemberian pupuk kandang ayam 29 gram/tanaman (P1), pemberian pupuk kandang ayam 59 gram/tanaman (P2), pemberian pupuk kandang ayam 88 gram/tanaman (P3). Data diolah menggunakan ANOVA, dilanjut DMRT 5%. Hasil penelitian menunjukkan bahwa PGPF berpengaruh nyata terhadap diameter tongkol. Dosis pupuk kandang kotoran ayam berpengaruh nyata terhadap diameter batang 40 HST, berat tongkol basah per sampel, berat tongkol kering per sampel, berat pipilan per sampel, berat pipilan per plot, dan berat 100 biji.

Kata Kunci: *Jagung Burdek, Planth Growth Promotting Fungi, Pupuk Kotoran Ayam.*