

## ABSTRAK

### PENGARUH PUPUK KOTORAN SAPI YANG DIPERKAYA DAN DOSIS PUPUK NPK TERHADAP PERTUMBUHAN DAN HASIL TANAMAN PADI

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Penelitian ini bertujuan untuk mendapatkan kombinasi perlakuan paling baik antara pupuk kotoran sapi yang diperkaya dengan pupuk NPK terhadap pertumbuhan dan hasil padi. Penelitian ini dilaksanakan di Kajor wetan, selopamioro, imogiri, bantul, Daerah Istimewa Yogyakarta. Penelitian percobaan pot diatur dalam Rancangan Acak Lengkap (RAL), dengan dua faktor. Sebagai kontrol digunakan pupuk kotoran sapi 100% + pupuk NPK dosis anjuran (300 kg/ha Urea, 100 kg/ha SP-36 dan 100 kg/ha KCl). Faktor pertama adalah campuran pupuk kotoran sapi diperkaya yang terdiri atas 3 taraf, yaitu O1= pupuk kotoran sapi : Guano Phosfat = 70%(w) : 30%(w), O2= pupuk kotoran sapi : zeolit = 70%(w) : 30%(w), O3= pupuk kotoran sapi : kompos jerami = 70%(w) : 30%(w). Faktor kedua adalah dosis pupuk NPK terdiri atas 3 taraf, yaitu: P1=50% x dosis anjuran, P2=75% x dosis anjuran, P3=100% x dosis anjuran. Data pengamatan dianalisis dengan sidik ragam (ANOVA) pada taraf 5%, dilanjutkan dengan uji *Duncan's Multiple Range Test* (DMRT) pada taraf 5% dan uji *Contras orthogonal* pada taraf 5%. Hasil penelitian menunjukkan kombinasi perlakuan pupuk kotoran sapi yang diperkaya dan dosis NPK nyata lebih tinggi dibandingkan kontrol pada parameter tinggi tanaman umur 2 dan 4 mst, jumlah anakan umur 2 dan 8 mst, bobot kering, jumlah anakan produktif per rumpun, persentase gabah isi per malai, persentase gabah hampa per malai, dan bobot 100 butir. Kombinasi pupuk kotoran sapi+*zeolite* memberikan pertumbuhan padi yang terbaik pada parameter tinggi tanaman umur 6 dan 8 mst, sedangkan pupuk kotoran sapi+kompos jerami serta dosis NPK 50% menghasilkan bobot kering paling tinggi.

Kata Kunci : Pupuk kotoran sapi yang diperkaya, pupuk NPK, tanaman padi

## ABSTRACT

### EFFECT OF ENRICHED COW MANURE FERTILIZER AND NPK FERTILIZER DOSES ON GROWTH AND YIELD OF RICE

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This research aimed to study the best combination of treatments between enriched cow manure fertilizer and NPK fertilizer doses on growth and yield of rice. This research was conducted in Kajor wetan, Selopamioro, Imogiri, Bantul, Special Region of Yogyakarta. The experiment was arranged in Randomized Completely Design of 2 faktors. As a control were used 100% cow manure + NPK fertilizer dose recommend (300 kg / ha Urea, 100 kg / ha SP-36 and 100 kg / ha KCl). The first factor is was mixed of enriched cow manure fertilizer which be consisted of 3 extent, O1 = cow manure fertilizer: Guano Phosphate = 70% (w): 30% (w), O2 = cow manure fertilizer: zeolite = 70% (w): 30% (w), O3 = cow manure fertilizer: straw compost = 70% (w): 30% (w). The second factor was NPK fertilizer doses which be consisted of 3 extent, P1 = 50% x recommended dose, P2 = 75% x recommended dose, P3 = 100% x recommended dose. The observation data were analyzed by analysis of variance (ANOVA) at 5%, continued with *Duncan's Multiple Range Test* (DMRT) and orthogonal contrast test at 5%. The results showed that the combination of enriched cow manure fertilizer treatment and NPK fertilizer dose was significantly higher than control to parameters plant height on 2 and 4 wap, amounted of tiller on 2 and 8 mst, dry weight, amounted of productive tiller per clump, percentage of filled grain per panicle , percentage of empty grain per panicle, and weight of 100 grains. The combination of cow manure fertilizer + zeolite gave the best rice growth on parameters of plant height on 6 and 8 wap, Cow manure fertilizer + straw compost and 50% NPK dose produced the highest plant dry weight.

**Keywords** : cow manure fertilizer, NPK fertilizer, rice