KAJIAN EFEKTIVITAS PUPUK NPK (15-15-6-4) PADA PADI DI LAHAN SAWAH IRIGASI KABUPATEN MALANG

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ABSTRACT

The Effective Assessment of NPK Fertilizer for Irrigated rice in Malang District. The suboptimal rice production on irrigated rice in Malang was due to the low fertilization efficiency. The objective of the single fertilizer and compound fertilizer application study on irrigated rice was to understand the fertilization efficiencies on irrigated rice. The on-farm experiment was conducted at Sekarpuro Village, Pakis District, Malang Regency in the first dry season (April – July 2007) and the types of soil was Regosol with sand loam texture. The design of the experiment was a Randomized Completely Block Design (RCBD), with 13 treatments and 3 replications. Treatments to be tested were : T1 = without fertilizer, T_2 = 300 kg NPK (15-15-6-4)/ha, T_3 = 100 kg Urea/ha + 100 kg ZA/ha, T_4 = 100 kg Urea/ha + 100 kg ZA/ha + 100 kg NPK (15-15-6-4)/ha, T_5 = 100 kg Urea/ha + 100 kg ZA/ha + 200 kg NPK (15-15-6-4)/ha, T_6 = 100 kg Urea/ha + 100 kg ZA/ha + 300 kg NPK (15-15-6-4)/ha, T_7 = 200 kg Urea/ha + 100 kg ZA/ha, T_8 = 200 kg Urea/ha + 100 kg SP-36/ha + 100 kg NPK (15-15-6-4)/ha; T_9 = 200 kg Urea/ha + 100 kg ZA/ha + 100 kg NPK (15-15-6-4)/ha, T_{10} = 200 kg Urea/ha + 100 kg ZA/ha + 300 kg NPK (15-15-6-4)/ha, T_{11} = 300 kg Urea/ha + 100 kg ZA/ha + 100 SP-36/ha + 75 kg KCl/ha, T_{12} = 200 kg Urea/ha + 100 kg ZA/ha + 200 kg NPK Phonska/ha. The data were analyzed using ANOVA and BNT. The results of combining macro inorganic fertilizers and alternative fertilizers showed that treatment (a) where 200 kg Urea combined with 100 kg ZA and 300 kg NPK (15-15-6-4) provided Cibogo dried grains yield with 6.28 t/ha with RC 3.17, thus increasing farmer's income to Rp.14,130,000, giving a profit of Rp.9,677,050, with treatment (b) where 200 kg of Urea combined with 100 kg ZA and 200 kg NPK Phonska provided Cibogo dried grains yield with as much as 6,05 t/ha with R/C 3.22 thus increasing farmer's income to Rp.13,612,500, giving a profit of Rp.9,380,700. From economical point of view by combining fertilizers gave the economic advantage with higher revenue cost ratio and profit compared to single fertilization system

Key words : *alternative fettilizer, macro anorganic fertilizer, rice, rainfed rice*

ABSTRAK

Belum optimalnya produktivitas padi di lahan sawah, antara lain disebabkan oleh rendahnya efisiensi pemupukan. Kajian pemupukan alternatif pada padi sawah dilaksanakan di Desa Sekarpuro, Kecamatan Pakis, Kabupaten Malang di Musim Kemarau I (April - Juli) tahun 2007, termasuk jenis tanah Regosol dengan tekstur tanah lempung berpasir. Rancangan percobaan menggunakan Rancangan Acak Kelompok (RAK) dengan 12 perlakuan dan 3 ulangan. Perlakuan yang dikaji adalah (1). Tanpa pemupukan, T_1 = tanpa pupuk, T_2 = 300 kg NPK(15-15-6-4)/ha, T_3 = 100 kg Urea/ha + 100 kg ZA/ha, T_4 = 100 kg Urea/ha + 100 kg ZA/ha + 100 kg NPK (15-15-6-4)/ha, T_5 = 100 kg Urea/ha + 100 kg ZA/ha + 200 kg NPK (15-15-6-4)/ha, T_6 = 100 kg Urea/ha + 100 kg ZA/ha + 300 kg NPK (15-15-6-4)/ha, T_7 = 200 kg Urea/ha + 100 kg ZA/ha, T_8 = 200 kg Urea/ha + 100 kg SP-36/ha + 100 kg NPK (15-15-6-4)/ha; T_9 = 200 kg Urea.ha + 100 kg ZA/ha + 100 kg NPK (15-15-6-4)/ha, T_{10} = 200 kg Urea/ha + 100 kg ZA/ha + 300 kg NPK (15-15-6-4)/ha, T_{11} = 300 kg Urea/ha + 100 kg ZA/ha + 100 SP-36/ha + 75 kg KCl/ha, T_{12} = 200 kg Urea/ha + 100 kg ZA/ha + 200 kg NPK Phonska/ha. Analisis data menggunakan ANOVA dilanjutkan dengan uji BNT.Hasil pengkajian penggunaan pupuk makro anorganik yang dikombinasikan dengan pupuk alternatif menunjukkan bahwa (a). 200 kg Urea/ha + 100 kg ZA/ha + 300 kg