

RINGKASAN

Pemupukan dilakukan sebagai salah satu upaya meningkatkan hasil tanaman padi dengan memberikan tambahan unsur hara pada tanaman. Kurangnya perhatian petani terhadap penggunaan pupuk yang sesuai kebutuhan tanaman padi menyebabkan pemberian pupuk dilakukan secara berlebihan. Penggunaan pupuk yang sesuai dengan kebutuhan tanaman akan meningkatkan hasil tanaman dan efisiensi penggunaan pupuk. Penelitian ini bertujuan untuk: mengetahui pengaruh takaran jerami dan komposisi pupuk NPK-SR terhadap hasil tanaman padi, mengetahui komposisi pupuk NPK-SR yang mempunyai efisiensi N tertinggi pada berbagai takaran jerami.

Penelitian dilaksanakan di Laboratorium Experimental Farm Fakultas Pertanian, Universitas Jenderal Soedirman, Purwokerto. Penelitian mulai dari bulan November 2019 sampai dengan Juli 2020. Penelitian disusun menggunakan Rancangan Acak Lengkap (RAL) yang terdiri atas 2 faktor. Faktor pertama yaitu takaran jerami yang terdiri dari 3 taraf, yaitu J0 (tanpa jerami), J1 (setara 20 ton/ha) dan J2 (setara 40 ton/ha). Faktor kedua yaitu komposisi pupuk NPK-SR yang terdiri dari 6 taraf yaitu K0 (tanpa pupuk), K1 (15-15-0), K2 (15-15-5), K3 (15-15-10), K4 (15-15-15) dan K5 (15-15-20), sehingga diperoleh 18 kombinasi perlakuan dan diulang 3 kali. Data hasil penelitian dianalisis dengan Uji F, perlakuan yang menunjukkan keragaman dilanjutkan dengan uji DMRT (Duncan's Multiple Range Test) pada taraf kesalahan 5%.

Hasil penelitian menunjukkan aplikasi takaran jerami berpengaruh nyata terhadap variabel bobot kering tanaman 4,25 g/tanaman; bobot kering gabah 1,01 g/tanaman; jumlah gabah bernas 52,29 butir. Aplikasi komposisi pupuk NPK-SR berpengaruh nyata terhadap bobot kering tanaman 4,53 g/tanaman dan jumlah gabah bernas 71,98 butir. Aplikasi kombinasi takaran jerami dan pupuk NPK-SR memberikan pengaruh nyata pada bobot kering tanaman 7,03 g/tanaman dan jumlah gabah bernas 112,74 biji. Efisiensi penggunaan N tertinggi pada komposisi pupuk NPK-SR 15-15-5 dengan takaran jerami setara 40 ton/ha.

Kata kunci: pupuk NPK-SR, jerami, efisiensi N, hasil tanaman padi

SUMMARY

Fertilization is carried out as an effort to increase rice yields by providing additional nutrients to plants. Lack of attention from farmers to the use of fertilizers according to the needs of the rice plant causes excessive fertilizer application. The use of fertilizers in accordance with plant needs will increase crop yields and the efficiency of fertilizer use. This study aims to: determine the effect of straw measure and NPK-SR fertilizer composition on rice yields, determine the composition of NPK-SR fertilizer which has the highest N efficiency at various straw doses.

The research was conducted at the Experimental Farm Laboratory, Faculty of Agriculture, Jenderal Soedirman University, Purwokerto. The research was conducted from November 2019 to July 2020. The research was compiled using a completely randomized design (CRD) which consisted of 2 factors. The first factor is the straw measure which consists of 3 levels, namely J0 (without straw), J1 (equivalent to 20 tons / ha) and J2 (equivalent to 40 tons / ha). The second factor is the composition of the NPK-SR fertilizer which consists of 6 levels, namely K0 (without fertilizer), K1 (15-15-0), K2 (15-15-5), K3 (15-15-10), K4 (15-15-15) and K5 (15-15-20), in order to obtain 18 treatment combinations and repeated 3 times. The research data were analyzed using the F test, the treatment that showed diversity was followed by the DMRT (Duncan's Multiple Range Test) at an error level of 5%.

The results showed that the application of the straw dose had a significant effect on the variable dry weight of 4.25 g / plant; unhulled dry weight of 1.01 g / plant; the number of pithy grains is 52.29. The application of NPK-SR fertilizer composition significantly affected the dry weight of 4.53 g / plant and the number of pithy grain 71.98 grains. Application of the combination of straw and NPK-SR fertilizer had a significant effect on plant dry weight of 7.03 g / plant and the number of pithy unhulled rice seeds of 112.74. The highest efficiency of N use was in the composition of NPK-SR 15-15-5 fertilizer with a straw dose of 40 tons / ha.

Key words: NPK-SR fertilizer, straw, N efficiency, rice yield