PERANAN LIMBAH ORGANIK TERHADAP PERTUMBUHAN TANAMAN PADI (*Oryza sativa* L.)

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh berbagai macam limbah organik dan waktu inkubasi terhadap pertumbuhan dan hasil tanaman padi. Penelitian dilakukan di rumah kaca pada saat inkubasi dan di kebun percobaan UPN Veteran Yogyakarta. Rancangan penelitian menggunakan rancangan acak lengkap (RAL) dua faktor. Faktor pertama inkubasi 1 bulan, inkubasi 2 bulan, dan inkubasi 3 bulan.Faktor ke dua yaitu limbah ampas tahu 10 ton/ha, 15 ton/ha dan 20 ton/ha, limbah kotoran sapi 10 ton/ha, 15 ton/ha, 20 ton/ha, limbah biochar tempurung kelapa 2 ton/ha, 4 ton/ha dan 6 ton/ha. Kombinasi dari 2 faktor tersebut di peroleh 30 perlakuan dan di ulang sebanyak 3 kali. Parameter yang diamati meliputi tinggi tanaman, jumlah anakan, panjang malai,jumlah gabah per malai, persentase gabah hampa, bobot 1000 bulir gabah, bobot gabah segar, dan bobot gabah kering. Analisis data menggunakan analisis sidik ragam dan uji Duncan Multiple Range Test (DMRT) pada taraf 5 %. Hasil penelitian menunjukan bahwa pengunaan limbah ampas tahu dengan dosis 20 ton/ha berpengaruh terhadap pertumbuhan vegetatif tanaman padi. Rata-rata waktu inkubasi terbaik pada setiap parameter yaitu dengan inkubasi selama 3 bulan.

Kata kunci : Entisol, limbah organik, dekomposisi & tanaman padi

THE ROLE OF ORGANIC WASTE ON RICE GROWTH (*Oryza sativa* L.)

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ABSTRACT

This study aims to know the influence of various kinds of organic waste and incubation time on the growth and yield of rice. The study was conducted in a greenhouse at the time of incubation and in the experimental garden of UPN Veteran Yogyakarta. The study design used was a complete randomized design (CRD) of two factors. The first factor was 1 month incubation, 2 months incubation, and 3 months incubation. The second factor was waste of tofu waste 10 tons/ha, 15 tons/ha and 20 tons/ha, cow dung waste 10 tons/ha, 15 tons/ha, 20 tons/ha, coconut shell biochar 2 tons/ha, 4 ton/ha and 6 ton/ha. The combination of these 2 factors was obtained by 30 treatments and repeated 3 times. The parameters observed were plant height, number of tillers, panicle length, number of grain per panicle, percentage of unfilled grain, weight of 1000 grain, fresh grain weight, and weight of dried grain. Data analysis used was variance analysis and Duncan Multiple Range Test (DMRT) test at 5% level. The results showed that the use of tofu waste with a dose of 20 tons/ha has an influence on vegetative growth of rice. The best incubation time on each parameter was incubation for 3 months.

Key words: Entisol, organic waste, decomposition & rice plant