RINGKASAN

Pupuk adalah bahan yang mengandung sejumlah nutrisi yang diperlukan bagi tanaman. Pupuk organik dan pupuk kimia akan lebih optimal dan lebih efisien penggunaannya bila dimanfaatkan secara bersama-sama. Penambahan pupuk organik dapat mengurangi dampak negatif pupuk kimia serta memperbaiki sifat fisik, biologi dan kimia tanah secara bersamaan. Penelitian ini bertujuan untuk mengetahui respon agronomis tanaman padi sawah terhadap pemberian pupuk organik berbasis khamir bambu dan mengetahui efektifitas Pupuk Organik Cair (POC) berbasis khamir bambu dibandingkan dengan pupuk anorganik yang direkomendasikan.

Penelitian dilaksanakan di lahan sawah Desa Gambarsari, Kecamatan Kebasen, Kabupaten Banyumas dan Laboratorium Mikrobiologi, Fakultas Pertanian, Universitas Jenderal Soedirman, Purwokerto pada bulan April sampai Juli 2018. Metode penelitian ini adalah rancangan percobaan denah tidak berpasangan dengan 2 perlakuan dan 15 ulangan. Variabel yang diamati meliputi tinggi tanaman, bobot basah tajuk, bobot kering tajuk, bobot basah akar, bobot kering akar, jumlah anakan produktif, jumlah gabah isi, jumlah gabah hampa, bobot gabah per rumpun, hasil gabah per hektar, jumlah anakan, dan bobot 1000 biji.

Hasil penelitian menunjukkan bahwa Pemberian POC berbasis Khamir Bambu mampu menekan penggunaan pupuk anorganik. Aplikasi POC + pestisida biorasional (P2) tidak berbeda nyata terhadap variabel tinggi tanaman, jumlah anakan produktif, bobot tajuk, bobot akar, jumlah gabah isi, jumlah gabah hampa, bobot gabah per rumpun. Aplikasi perlakuan P2 berbeda nyata pada variabel jumlah anakan dan bobot 1000 biji. Hal ini menunjukkan bahwa aplikasi POC dapat menekan penggunaan pupuk anorganik.

SUMMARY

Fertilizers are ingredients that contain a number of nutrients needed for plants. Organic fertilizers and chemical fertilizers will be more optimal and more efficient to use if used together. Addition of organic fertilizer can reduce the negative impact of chemical fertilizers and improve the physical, biological and chemical properties of the soil simultaneously. This study aims to determine the agronomic response of rice paddy plants to the administration of bamboo yeast-based organic fertilizers and to determine the effectiveness of bamboo yeast-based Liquid Organic Fertilizer (LOF) compared to recommended inorganic fertilizers.

The research was carried out in the paddy fields of Kebasen Subdistrict, Banyumas District and Microbiology Laboratory, Faculty of Agriculture, Jenderal Sudirman University, Purwokerto from April to July 2018. The method in this study was an unpaired trial design with 2 treatments and 15 replications. Variables comprised plants, shoot fresh weight, shoot dry weight, root fresh weight, root dry weight, number of productive tillers, number of filled grains, number of empty grains, grain weight per clump, grain yield per hectare, number of tillers, and weight of 1000 seed.

The results showed that the applications of Yeast Bamboo-based LOF was able to support the use of inorganic fertilizers. The application of LOF + biorational pesticides (P2) was not significantly different from the variables of plant height, number of productive tillers, short weight, root weight, number of grain, number of empty grains, weight of grain per clump. The P2 application was significantly different on the variable number of tillers and the weight of 1000 seeds. This shows that the LOF application could reduce the use of inorganic fertilizers.