

Intisari

Penelitian ini bertujuan untuk mengetahui efek budidaya konvensional menjadi budidaya organik terhadap sifat-sifat kimia tanah dan pertumbuhan tanaman padi. Sampel tanah diambil pada saat awal tanam, tengah tanam/ vegetatif akhir serta masa panen pada tanah sawah di Godean, Salaman dan Sambungmacan. Kandungan N Total Tanah dianalisis dengan metode Kjeldahl, P Tersedia Tanah dengan metode Olsen dan K Tersedia Tanah dengan Metode Flame Photometer. Analisis jaringan padi dengan metode destruksi basah. Hasil penelitian menunjukkan Sifat kimia tanah sawah organik awal konversi seperti DHL, Corganik, N total tanah, P tersedia tanah dan K tersedia tanah menunjukkan harkat sedang yang mendukung untuk pertumbuhan tanaman padi. Ketersediaan hara NPK berpengaruh terhadap serapan NPK, jumlah anakan serta bobot 1000 bulir padi. Serapan NPK pada trubus tanaman padi di Sambungmacan menunjukkan hasil yang paling baik yaitu berturut-turut 22,19 mg/tanaman, 8,93 mg/tanaman, 105,39 mg/tanaman. Serapan NPK pada trubus padi di Godean sebesar 18,39 mg/tanaman, 6,21 mg/tanaman dan 108,84 mg/tanaman. Sedangkan serapan NPK trubus padi di Salaman menunjukkan angka sebesar 15,65 mg/tanaman, 4,87 mg/tanaman dan 43,44 mg/tanaman. Ketersediaan Hara NPK, Serapan NPK pada tanaman, jumlah anakan, serta bobot bulir 1000 padi sampel sawah organik di Sambungmacan menunjukkan hasil yang lebih baik dibandingkan sawah organik di Salaman dan Godean.

Kata Kunci : pertanian organik, sifat kimia tanah, serapan hara NPK jaringan tanaman padi

Abstract

This study aimed to determine the effects of conversion of conventional farming into organic farming on the soil chemical properties and the growth of rice plants. Soil samples were taken at the beginning of planting, growing middle /late vegetative phase and harvest the rice field in Godean, Salaman and Sambungmacan. Total soil N content was analyzed by the method Kjeldahl, P available soil with Olsen method and K available with Flame Photometer method. Tissue analysis of rice with wet digestion method. The results showed that chemical properties of organic rice field in the early conversion such as DHL, C-organic, nitrogen content in the soil, P and K available soil indicates a medium level and support rice plant growth. Available NPK nutrient affect on NPK uptake , the number of tillers and weight of 1000 grains. Shoot NPK uptake of rice plants in Sambungmacan showed the best results are respectively 22.19 mg / plant, 8.93 mg / plant, 105.39 mg / plant. Shoot NPK uptake of rice plant in Godean of 18.39 mg / plant, 6,21 mg / plant and 108.84 mg / plant. Meanwhile, Shoot NPK uptake of rice plant in Salaman shows result of 15.65 mg / plant, 4.87 mg / plants and 43.44 mg / plant. Soil NPK uptake, NPK uptake of plants, the number of tillers, as well as the weight of 1000 grains of rice sample organic farming in Sambungmacan showed better results than the organic farming in Salaman and Godean.

Keywords: organic farming, soil chemical properties, NPK nutrient uptake of rice plant tissues