

SOIL FERTILITY STATUS OF ORGANIC AND CONVENTIONAL VEGETABLES CULTIVATION IN BATUR, GETASAN, SEMARANG

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ABSTRACT

Organic and conventional cultivation systems often have problems, one of which is the properties of the soil. The use of fertilizers and chemical pesticides that are not in accordance with the recommendations can affect soil properties. The properties of the soil plays an important role in maintaining nutrient availability and it uptake in the soil. This will have an impact on soil fertility status. The status of soil fertility is the ability of the soil to provide nutrients needed by plants to support crop productivity. As an indicator to find out the amount of nutrients given (the amount of nutrients needed) can be done with various approaches, one of which is soil analysis / testing. The purpose of this study was to study and find out the physical and chemical soil fertility status in vegetables cultivation system in organic with duration for more than 10 years, between 5-10 years, less than 5 years and conventional cultivation in Batur, Getasan, Semarang. Research survey used a completely randomized design (CRD). The data be analysed by Anova at 5% significant degree. To know the significant difference among of cultivation system the LSD test was used at 5%. The results showed that soil fertility status in organic cultivation with duration of more than 10 years was generally classified as high, organic cultivation with duration of 5-10 years was classified as high, organic cultivation withduration of less than 5 years was classified as moderate and conventional cultivation was classified as moderate. In general, four cultivation systems differ significantly from soil fertility status.

Keywords: organic cultivation, conventional cultivation, soil fertility.

STATUS KESUBURAN TANAH PADA BUDIDAYA SAYURAN ORGANIK DAN KONVENSIONAL DI BATUR, GETASAN, SEMARANG

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ABSTRAK

Sistem pertanian organik dan konvensional seringkali terdapat kendala, salah satunya sifat tanah. Penggunaan pupuk dan pestisida kimia yang tidak sesuai anjuran dapat mempengaruhi sifat tanah. Sifat tanah memegang peranan penting dalam menjaga ketersediaan dan serapan hara dalam tanah. Hal ini akan berdampak status kesuburan tanah. Status kesuburan tanah adalah kemampuan tanah dalam menyediakan unsur hara yang dibutuhkan tanaman untuk mendukung produktivitas tanaman. Sebagai indikator untuk mengetahui jumlah unsur hara yang diberikan (jumlah unsur hara yang diperlukan) dapat dilakukan dengan berbagai pendekatan, salah satunya yaitu analisis/uji tanah. Tujuan penelitian ini yaitu untuk mempelajari dan mengetahui status kesuburan tanah secara fisik dan kimia pada sistem budidaya selada dalam pertanian organik durasi lebih dari 10 tahun, antara 5-10 tahun, kurang dari 5 tahun dan pertanian konvensional di Desa Batur Kecamatan Getasan Kabupaten Semarang. Penelitian ini adalah penelitian survei dengan menggunakan rancangan acak lengkap (RAL). Analisis data yang dipakai adalah ANNOVA taraf 5%, jika terdapat perbedaan yang signifikan antar sistem budidaya maka dilanjutkan uji BNT taraf 5%. Hasil penelitian menunjukkan bahwa status kesuburan tanah pada pertanian organik durasi lebih dari 10 tahun secara umum tergolong tinggi, pertanian organik durasi 5-10 tahun tergolong tinggi, pertanian organik durasi kurang dari 5 tahun tergolong sedang dan pertanian konvensional tergolong sedang. Secara umum empat sistem pertanian berbeda signifikan terhadap status kesuburan tanah.

Kata kunci : pertanian organik, pertanian konvensional, kesuburan tanah.