KAJIAN UNSUR HARA YANG TERANGKUT PADA BUDIDAYA CABAI MERAH ORGANIK DAN KONVENSIONAL DI DESAR BATUR, KECAMATAN GETASAN KABUPATEN SEMARANG

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INTISARI

. Unsur hara yang terangkut merupakan komponen penting acuan pemupukan yang bertujuan mencapai keseimbangan hara sesuai prinsip pertanian berkelanjutan. Kajian ini bertujuan untuk mengetahui tingkat pengangkutan hara pada budidaya cabai merah sistem organik dan konvensional di level pedesaan sentra sayur penting bagi wilayah jawa tengah dan sekitarnya. Penelitian ini merupakan studi survey lapang yang dilaksanakan pada bulan Oktober-Februari 2017-2018 di Desa Batur, Kecamatan Getasan, Kabupaten Semarang. Sampel tanaman cabai dan tanah dengan 3 ulangan diambil dari lahan budidaya sayur petani organik tersertifikasi yang telah menerapkan pertanian organik selama 14 tahun dan peladang konvensional. Contoh biomassa dan tanah andosol kemudian dianalisis kandungan N, P, K, BV, pH dan kadar air di laboratorium tanah BPTP Yogyaakarta dan Laboratorium Agronomi Fakultas Agroindustri Universitas Mercu Buana Yogyakarta. Hasil analisis kemudian diuji dan dijelaskan dengan uji T sampel independen pada taraf kepercayaan 95% dan statistik deskriptif. Analisis statistik menunjukkan bahwa jumlah hara yang terangkut berbanding lurus dengan hara yang diaplikasikan dan biomassa total yang dihasilkan. Dari aspek keseimbangan hara, kedua sistem budidaya menghasilkan neraca positif. Hara N, P, dan K yang terangkut pada seluruh biomassa cabai organik dan konvensional masing-masing sejumlah 55.83 kg/Ha ± 16.38, 55.47 kg/Ha ± 13.91, 4.47 kg/Ha ± 0.69 dan 42,06 kg/Ha ± 12.81, 15.09 kg/Ha ± 12.28, 3.05 kg/Ha ± 1.84. Sedangkan neraca keseimbangan hara parsial secara berurutan berjumlah 659.71 kg/Ha, 739.15 kg/Ha, 409.31 kg/Ha dan 280.56 kg/Ha, 603.66 kg/Ha, 135.29 kg/Ha.

Kata kunci: hara yang terangkut, cabai merah, organik, konvensional, neraca keseimbangan hara.

STUDY OF CHILLI PEPPER NUTRIENTS REMOVAL IN ORGANIC AND CONVENTIONAL CULTIVATION IN BATUR VILLAGE GETASAN DISTRICT SEMARANG REGENCY

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ABSTRACT

. Nutrients removal is a key component utilized as a basis in determining appropriate applied fertilizer dose to achieve nutrients balance, of which is among the goals of sustainable agriculture. The purpose of the research is to unveil N, P, K removal of Red Hot Pepper (*Capsicum annum*) in both 14-year-old organic and conventional cultivation system in a vegetables-producing village level which is important for central java region. This study was a field survey conducted throughout October – February 2017-2018 in Batur village, Getasan district, Semarang regency. The plant and andisol soil samples with three replications were taken out from vegetable-cultivating lands in either system. The specimens were then analyzed to discover contained N, P, K, VW, pH, and water content in soil laboratory of BPTP and agronomic laboratory of Faculty of Agro-industry of University of Mercu Buana Yogyakarta. The observed data were then statistically-described and tested using T-test (α: 5%) and statistic description. It can be concluded that the amount of removed nutrients is positively correlated to the number of applied fertilizer and assimilated biomass. In the other hand, each system results positive nutrients balance sheet. Absorbed N, P, K contained in total biomass for the organically and conventionally-cultivated crop are repectively 55.83 kg/Ha ± 16.38, 55.47 kg/Ha ± 13.91, 4.47 kg/Ha ± 0.69 and 42,05 kg/Ha ± 12.81, 15.09 kg/Ha ± 12.28, 3.05 kg/Ha ± 1.84. In addition, N, P, K nutrients balance sheets in the aforementioned systems are respectively 659.71 kg/Ha, 739.15 kg/Ha, 409.31 kg/Ha and 280.56 kg/Ha, 603.66 kg/Ha, 135.29 kg/Ha.

Keywords: Nutrients removal, Red Hot Chilli Pepper, Organic and Conventional System, Nutrient Balance