ABSTRAK

Penelitian ini bertujuan untuk mengkaji pengaruh pemberian dosis kasgot terhadap karakter agronomi tanaman bayam merah dan mendapatkan dosis kasgot terbaik yang dapat mendukung karakter agronomi tanaman bayam merah. Penelitian ini dilaksanakan di lahan yang berada di Tambaksari Kidul, Kecamatan Kembaran, Kabupaten Banyumas. Kegiatan persiapan dan analisis dilakukan di Laboratorium Agronomi & Hortikultura, Fakultas Pertanian, Universitas Jenderal Soedirman. Kegiatan Penelitian dilaksanakan selama tiga bulan, dimulai dari Desember 2022 sampai dengan Februari 2023. Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) non faktorial dengan 7 perlakuan dan 4 kali ulangan, sehingga terdapat 28 petak percobaan. Petak percobaan berukuran 1m x 2m. Faktor yang diujikan yaitu dosis pupuk kasgot dengan penambahan dosis pupuk N-P-K sesuai dosis anjuran. Faktor pupuk kasgot terdiri atas 0 ton/ha, 5 ton/ha, 10 ton/ha, dan 15 ton/ha. Semua faktor ditambahkan pupuk NPK dengan penurunan taraf dosis pupuk NPK ¼ dari dosis yang dianjurkan. Dosis pupuk N-P-K yang dianjurkan, yaitu urea 150 kg/ha, SP-36 150 kg/ha, dan KCl 100 kg/ha. Hasil penelitian menunjukkan bahwa pemberian dosis kasgot berpengaruh sangat nyata terhadap variabel tinggi tanaman, jumlah daun, luas daun, bobot segar tanaman, bobot kering tanaman, bobot kering akar, kadar klorofil b, kerapatan stomata, rasio tajuk akar, dan analisis RAE (*Relative Agronomic Effectiveness*). Aplikasi dosis kasgot mulai dari 5 ton/ha sampai 15 ton/ha secara agronomi dapat tergolong efektif dan sudah mampu dalam meningkatkan hasil tanaman bayam merah dibandingkan kontrol dan perlakuan pupuk standar.

Kata kunci: bayam merah dan kasgot.

ABSTRACT

This study aims to examine the effect of kasgot dosing on the agronomic character of red spinach plants and get the best dose of kasgot that can support the agronomic character of red spinach plants. This research was conducted on land located in Tambaksari Kidul, Kembar District, Banyumas Regency. Preparatory and analytical activities are carried out at the Agronomy & Horticulture Laboratory, Faculty of Agriculture, Jenderal Soedirman University. The research activity was carried out for three months, starting from December 2022 to February 2023. This study used a non-factorial Group Randomized Design (RAK) with 7 treatments and 4 repeats, so that there were 28 experimental plots. The trial plot was 1m x 2m. The factor tested was the dose of castor fertilizer with the addition of the dose of N-P-K fertilizer according to the recommended dose. The kasgot fertilizer factor consists of 0 tons/ha, 5 tons/ha, 10 tons/ha, and 15 tons/ha. All factors were added NPK fertilizer with a decrease in the dose level of NPK fertilizer 1/4 of the recommended dose. The recommended dose of N-P-K fertilizer is urea 150 kg/ha, SP-36 150 kg/ha, and KCl 100 kg/ha. The results showed that kasgot dosing had a very real effect on the variables of plant height, number of leaves, leaf area, fresh mass of plants, dry mass of plants, dry mass of roots, chlorophyll b levels, stomata density, shoot root ratio, and RAE (Relative Agronomic Effectiveness) analysis. The application of kasgot doses ranging from 5 tons/ha to 15 tons/ha can be classified as agronomically effective and has been able to increase the yield of red spinach plants compared to controls and standard fertilizer treatments.

Keywords: red spinach and kasgot