

PENGARUH PENAMBAHAN TEPUNG KERABANG TELUR TERHADAP KUALITAS KOMPOS BERBAHAN DASAR EKSKRETA AYAM

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan tepung kerabang telur terhadap kualitas kompos berbahan dasar ekskreta ayam. Penelitian ini terdiri dari lima tahapan, yaitu pembuatan tepung kerabang telur, pembuatan kompos, uji kualitas fisik (warna, bau, tekstur, pH, dan pengukuran temperatur), uji kualitas kimia (uji kadar air, bahan organik, karbon, nitrogen, fosfor, kalium, dan rasio C/N), dan uji kualitas biologis (penanaman bayam, pengukuran tinggi tanaman, jumlah daun, pengukuran berat panen dan berat kering bayam). Pembuatan pupuk kompos dibuat dengan 4 perlakuan, setiap perlakuan terdiri dari 3 replikasi. Perlakuan pertama sebagai kontrol adalah kompos tanpa penambahan tepung kerabang telur (K0), perlakuan kedua dengan penambahan tepung kerabang telur sebanyak 5% (K5), perlakuan ketiga dengan penambahan tepung kerabang telur sebanyak 7,5% (K7,5), dan perlakuan keempat dengan penambahan tepung kerabang telur sebanyak 10% (K10). Hasil yang diperoleh dianalisis dengan menggunakan analisis variansi rancangan acak lengkap pola searah, apabila terdapat beda nyata dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DMRT). Penambahan tepung kerabang telur dalam proses pengomposan berbahan dasar ekskreta ayam dapat meningkatkan kandungan bahan organik, karbon, nitrogen, fosfor, tinggi tanaman, jumlah daun bayam, dan berat kering bayam tetapi tidak berpengaruh terhadap kadar air, kalium, C/N rasio, dan berat panen bayam.

Kata kunci: ekskreta ayam, tepung kerabang telur, pupuk kompos, uji kualitas

THE EFFECT OF EGG SHELL FLOUR ADDITION TO THE QUALITY OF CHICKEN MANURE FERTILIZER

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ABSTRACT

The purpose of this research was to determine the effect of egg shell flour to the quality of chicken manure compost fertilizer. The research consisted of five steps, those were making egg shell flour, composting, physical test (color, smell, texture, pH, and temperature), chemical test (water content, organik material, carbon, nitrogen, phosphorus, potassium, and C/N ratio), and biological test (planting spinach, plant height, the number of leaves, weight and dry matter of spinach). Compost fertilizer consisted of four treatments, each treatment consisted of three replications. The first treatment as control was made without any egg shell flour (K0), second treatment was made using 5% egg shell flour (K5), third treatment was made using 7,5% egg shell flour (K7,5), and the forth treatment was made using 10% egg shell flour (K10). The results were statistically analyzed by variance analysis of one-way complete randomized design, and mean statistical differences were calculated by Duncan's New Multiple Range Test (DMRT). The results showed that the addition of egg shell flour could increase the content of organic matter, carbon, nitrogen, phosphorus, plant height, the number of spinach leaves and the dry weight of spinach but did not affect the water content, potassium, C/N ratio, and the weight of spinach.

Key words: excreta, egg shell flour, compost fertilizer, quality test