PENGARUH PENAMBAHAN JENIS STARTER YANG BERBEDA TERHADAP KUALITAS PUPUK KOMPOS DI KELOMPOK TERNAK MERGO ANDINI MAKMUR, SEYEGAN, SLEMAN

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan jenis starter yang berbeda terhadap kualitas pupuk kompos yang terbuat dari kotoran sapi potong (PO) peranakan unggul dengan pakan jerami padi dan hijauan di Kelompok Ternak Mergo Andini Makmur, Seyegan, Sleman. Metode yang dilakukan pada proses pengomposan yakni dengan memberikan perbedaan perlakuan penggunaan starter. Starter yang digunakan yakni EM-4 (P1), starter (BM-4) (P2) dan starter Petroganik (P3). EM-4 dijadikan sebagai kontrol sedangkan starter BM-4 dan starter petroganik akan dilihat hasilnya kemudian dibandingkan dengan kontrol. Bahan yang digunakan yakni feses 90%, jerami padi 7%, abu 1%, kapur 1%, dan penambahan starter 1%. Hasil yang diperoleh di analisis menggunakan rancangan acak lengkap pola searah dilanjutkan *Duncan new multiple range test* (DMRT). Hasil analisis parameter fisik pupuk kompos perlakuan P1, P2 dan P3 tidak ada perbedaan nyata. Pupuk berwarna coklat kehitaman, tidak berbau feses dan bertekstur remah. Hasil analisis kadar C-organik perlakuan P1, P2 dan P3 berturut-turut yakni, 38,92%, 37,93% dan 36,45%, sedangkan kadar nitrogen berturut-turut yakni 5,83%, 7,32% dan 6,13%. Rasio C/N masing-masing perlakuan P1, P2 dan P3 yakni 6,87, 5,64 dan 6,69, sedangkan kadar phospor masing-masing 0,09%, 0,15% dan 0,13%. Hasil analisis kadar kalium P1, P2 dan P3 berturut-turut yakni 0,84%, 0,75% dan 0,76%. Hasil pengujian parameter biologis menunjukkan adanya pengaruh dari penambahan pupuk kompos P1, P2 dan P3 terhadap tinggi tanaman, jumlah daun, dan berat panen tanaman sawi dibandingkan tanpa penambahan pupuk kompos. Penambahan jenis starter yang berbeda tidak menghasilkan perbedaan nyata terhadap kualitas pupuk kompos yang dihasilkan terhadap parameter fisik, kimia dan biologis.

Kata kunci : EM-4, BM-4, kompos, kualitas kimia, petroganik.

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ABSTRACT

This study aims to determine the effect of the addition of different types of starters on the quality of compost made from superior beef cattle (PO) peranakan with rice and forage feed in the Mergo Andini Makmur Livestock Group, Seyegan, Sleman. The method used in the composting process is by giving a different treatment using the starter. The starter used is EM-4 (P1), starter (BM-4) (P2) and Petorganic starter (P3). EM-4 is used as control while the BM-4 starter and organic starter will be seen as a result then compared to the control. The material used is stool 90%, 7% rice straw, 1% ash, 1% lime, and 1% addition of starter. The results obtained were analyzed using a complete randomized pattern of unidirectional patterns followed by Duncan new multiple range test (DMRT). The results of the analysis of the physical parameters of treatment compost P1, P2 and P3 were not significantly different. Fertilizer is blackish brown, does not smell of stool and crumbs. The results of the analysis of the levels of C-organic treatments P1, P2 and P3 were 38.92%, 37.93% and 36.45% respectively, while nitrogen levels were 5.83%, 7.32% and 6 respectively. , 13%. The C / N ratio of each treatment P1, P2 and P3 is 6.87, 5.64 and 6.69, while the phospor level is 0.09%, 0.15% and 0.13% respectively. The results of analysis of potassium levels P1, P2 and P3 were respectively 0.84%, 0.75% and 0.76%. The results of testing the biological parameters showed the influence of the addition of compost fertilizer P1, P2 and P3 on plant height, leaf number, and harvest weight of mustard plants compared without the addition of compost fertilizer. Addition of different types of starters did not produce significant differences in the quality of compost produced with physical, chemical and biological parameters.

Keywords: EM-4, BM-4, compost, chemical quality, petroganic