

KAJIAN PENGARUH INTERVAL PENGADUKAN PADA PROSES PENGOMPOSAN KOTORAN KAMBING

INTISARI

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Limbah peternakan yang begitu melimpah berpotensi dalam peningkatan kompos yang dapat membantu petani dalam memupuk tanaman khususnya limbah kotoran kambing. Pemahaman serta kajian tentang optimalisasi pengadukan pada pengomposan kotoran kambing masih jarang dilakukan. Penelitian ini mengkaji optimalisasi interval pengadukan pada pengomposan dengan tiga perlakuan, yaitu perlakuan pengadukan 7 hari sekali, perlakuan pengadukan 14 hari sekali, dan perlakuan pengadukan 21 hari sekali, yang diulang sebanyak 3 kali ulangan. Media tempat pengomposan berupa bak terbuka. Parameter yang dikaji dan diamati berupa suhu, pH, kadar air dan kadar abu pada ketiga perlakuan tersebut. Lama waktu pengomposan berlangsung selama 45 hari. Kompos yang dihasilkan dari ketiga interval tersebut dilihat dari hasil analisis statistik bahwa, tidak mempengaruhi suhu, pH, kadar air, dan kadar abu pada proses pengomposan. Suhu kompos yang dicapai di atas 55°C selama 3 hari lebih (*Thermofilik*) dicapai oleh pupuk dengan perlakuan 7 hari sekali pengadukan ulangan ke satu dan ke dua, serta pada pengadukan 14 hari sekali ulangan ke dua. Berdasarkan hasil analisis statistik pada proses pengomposan berupa suhu, pH, kadar air, dan kadar abu tidak bisa menentukan kualitas terbaik dari sebuah kompos dengan perlakuan interval pengadukan yang berbeda.

Kata kunci: kompos, suhu, pH, kadar air, kadar abu, kotoran kambing

STUDY OF THE INFLUENCE OF SHIRTING INTERVAL ON THE COMPOSTING PROCESS OF GOAT DUNG

ABSTRACT

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The abundance of livestock waste has the potential to increase compost which can help farmers in fertilizing plants, especially goat manure. Understanding and studies on the optimization of stirring in goat manure composting are still rarely carried out. This study examined the optimization of the mixing interval in composting with three treatments, namely the therapeutic treatment for 7 days, the mixing treatment for 14 days, and the stirring treatment for 21 days, which was repeated 3 times. The media for composting is in the form of an open tub. The parameters studied and observed were temperature, pH, water content and ash content in the three treatments. The length of time for composting lasts for 45 days. The compost produced from the third interval is seen from the results of statistical analysis that does not affect temperature, pH, water content, and ash content in the composting process. Compost temperature reached above 55°C for more than 3 days (thermophilic) was achieved by fertilizer with treatment for 7 days with one and two repetitions, and 14 days with a second repetition. Based on the results of statistical analysis on the composting process in the form of temperature, pH, moisture content, and ash content cannot determine the best quality of a compost with different stirring interval treatment.

Keywords: compost, temperature, pH, moisture content, ash content, goat dung