

PEMANFAATAN KOMPOS BAGLOG ISI RUMEN DAN KERABANG TELUR DENGAN PENAMBAHAN BOKASHI PADA PERTUMBUHAN SELADA MERAH

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INTISARI

Penelitian ini bertujuan untuk mengetahui pemanfaatan limbah baglog dari isi rumen dengan berbagai komposisi penyusun yang dikomposkan sebagai media tanam selada merah. Bahan yang digunakan adalah limbah baglog jamur, air, *starter Propunic* dan benih selada merah. Penelitian ini dilakukan dengan menggunakan 3 jenis limbah baglog yaitu baglog komersil, baglog isi rumen dan baglog isi rumen tersubstitusi kerabang telur. Limbah baglog didapatkan dari 2 lokasi yaitu Griya Jamur Mitra Miselium Bantul dan kumbung jamur Fakultas Peternakan UGM. Penelitian terdiri dari empat tahapan, yaitu tahap persiapan bahan, uji kandungan nutrisi media tanam, tahap penanaman selada merah dan tahap uji hasil tanaman (produktivitas). Kompos dibuat dengan empat perlakuan berdasarkan komposisi, yaitu kompos limbah baglog komersil (P_0), kompos limbah baglog isi rumen (P_1), kompos limbah baglog isi rumen substitusi kerabang telur (P_2) dan kompos limbah baglog isi rumen substitusi kerabang telur dengan penambahan bokashi 50% (P_3). Parameter kimia yang diamati meliputi kadar air, bahan organik, C-organik, nitrogen total, C/N rasio, fosfor dan kalium. Variabel produktivitas tanaman selada merah (*Lactuca sativa var. crispata*) meliputi jumlah helaian daun, panjang dan lebar daun, tinggi tanaman dan berat panen. Analisis statistik yang dilakukan adalah analisis Rancangan Acak Lengkap (RAL) pola searah, apabila didapatkan data yang berbeda nyata, akan dilanjutkan dengan uji *Duncan's new Multiple Range Test* (DMRT). Hasil penelitian menunjukkan bahwa kompos isi rumen dengan substitusi kerabang telur dan penambahan bokashi (P_3) mampu meningkatkan nutrisi dari kompos berupa nitrogen total dan fosfor menjadi 19,50% dan 5,14%. Perlakuan P_3 juga meningkatkan produktivitas tanaman selada merah seperti jumlah helaian daun, panjang dan lebar daun serta berat panen. Dapat disimpulkan bahwa baglog isi rumen tersubstitusi kerabang telur yang diberi tambahan bokashi mampu meningkatkan nutrisi kompos media tanam, sehingga didapatkan produktivitas tanaman selada merah yang baik.

(Kata kunci : kompos, limbah baglog, isi rumen, kerabang telur, selada merah)

THE USE OF COMPOST BAGLOG WITH RUMEN CONTENTS AND EGGSHELLS WITH THE ADDITION OF BOKASHI ON THE GROWTH OF RED LETTUCE

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ABSTRACT

This research aimed to determine the use of baglog waste with various compostable compositions for use as a red lettuce growing medium. The materials used were mushroom baglog waste, water, Propunic starter and red lettuce seeds. This research was conducted using 3 types of baglog waste, namely commercial baglog, rumen-filled baglog and egg-shell substituted rumen-filled baglog. Baglog waste was obtained from 2 locations, namely Bantul Mushroom House and mushroom kumpang, Faculty of Animal Science UGM. The study consisted of four stages, namely the preparation stage, the test for the nutrient content of the planting medium, the red lettuce planting stage and the plant yield test (productivity). Compost for planting media was made with four treatments based on composition, namely commercial baglog waste compost (P0), rumen-filled baglog waste compost (P1), baglog waste compost with rumen content, eggshell substitution (P2) and baglog waste compost with rumen-filled eggshell substitution. bokashi 50% (P3). The chemical parameters observed included moisture content, organic matter, C-organic, total nitrogen, C / N ratio, phosphorus and potassium. The productivity variables of red lettuce (*Lactuca sativa* var. *Crispa*) include the number of leaves, length and width of leaves, plant height and harvest weight. The statistical analysis carried out was a unidirectional one way ANOVA analysis, then if data were significantly different, it would be continued with Duncan's new Multiple Range Test (DMRT). The results showed that rumen content compost with eggshell substitution and addition of bokashi (P3) was able to increase the nutrients from compost in the form of total nitrogen and phosphorus to 19.50% and 5.14%. P3 treatment also increases the productivity of red lettuce plants such as the number of leaves, length and width of leaves and harvest weight. It can be concluded that the baglog of rumen contents substituted with eggshell added with bokashi was able to increase the nutrient compost of the planting medium, so that good red lettuce plant productivity was obtained.

(Keywords: compost, baglog waste, rumen contents, eggshells, red lettuce)