

KUALITAS KOMPOS FESES KELINCI DENGAN PENAMBAHAN STARTER *Alcaligenes sp.* LS2T dan *Arthrobacter sp.* LM1KK

Defi Natalia
11/313251/PT/05998

INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan *Alcaligenes sp.* LS2T dan *Arthrobacter sp.* LM1KK terhadap reduksi amonia dan kualitas kompos feses kelinci. Penelitian terdiri dari tiga perlakuan, yaitu perlakuan pertama dengan penambahan marolis sebagai kontrol, perlakuan kedua dengan penambahan *Alcaligenes sp.* LS2T, dan perlakuan ketiga dengan penambahan *Arthrobacter sp.* LM1KK. Data yang diperoleh meliputi pertumbuhan kultur starter, uji kualitas fisik meliputi suhu dan pH pengomposan, uji mikrobiologis dan uji kualitas kimia meliputi kadar air, bahan organik, C-organik, P total, K total, N total, dan C/N rasio. Data pengembangbiakan kultur starter, uji fisik dan uji mikrobiologis dianalisis secara deskriptif. Data konsentrasi gas amonia dan uji kualitas kimia dianalisis dengan rancangan acak lengkap pola searah dan *Duncan's New Multiple Range Test* (DMRT). Hasil penelitian menunjukkan bahwa penambahan *Alcaligenes sp.* LS2T memberikan hasil signifikan paling baik dalam mereduksi amonia dibandingkan dengan *Arthrobacter sp.* LM1KK dan Marolis sebagai kontrol. Hasil uji kualitas kimia terbaik dihasilkan dari penambahan starter *Arthrobacter sp.* LM1KK dengan kandungan Kadar air 28,78 %, bahan organik 13,75 %, C-organik 7,97% , P total 1,38 %, K total 2,52 % , N total 0,65 % dan C/N Rasio 14,97 %. Kesimpulan dari penelitian ini *Alcaligenes sp.* LS2T paling baik dalam mereduksi amonia akan tetapi *Arthrobacter sp.* LM1KK berpengaruh paling baik terhadap hasil uji kualitas kimia.

Kata kunci : Feses kelinci, *Alcaligenes sp.*, *Arthrobacter sp.*, Amonia

THE QUALITY OF RABBIT FECES COMPOST WITH THE ADDITION OF *Alcaligenes sp. LS2T* and *Arthrobacter sp. LM1KK* STARTER

Defi Natalia
11/313251/PT/05998

ABSTRACT

This study aims to determine the effects of *Alcaligenes sp. LS2T* and *Arthrobacter sp. LM1KK* to the ammonia reduction and quality of rabbit feces compost. This study consists of three treatments, the first treatment with the addition of marolis as control, the second treatment with the addition of *Alcaligenes sp. LS2T* and the third treatment with the addition of *Arthrobacter sp. LM1KK*. Data obtained were the starter culture growth, concentration of ammonia, examination of the qualities of physical such as temperature and pH composting, microbiology examination and the chemical quality such as water content, organic matter, C-organic, P total, K total, N total and C/N ratio was examined. The examinations above are analysed by using diverse methods. Descriptive analysis performed on data starter culture growth, physical quality and microbiology examination. Data of ammonia concentration and quality of the chemical, using the method of completely randomized design of one way anova. The results of this study proves that the additon of *Alcaligenes sp. LS2T* has significant result in reducing ammonia compares *Arthrobacter sp. LM1KK* and Marolis as the control. The best result of chemical examinations was done by *Arthrobacter sp. LM1KK* with the content of water 28.78 %, organic matters 13.75 %, C-organic 7.97% , P total 1.38 %, K total 2.52 % , N total 0.65 % dan C/N Ratio 14.97 %. In coclusion, *Alcaligenes sp. LS2T* is the best addition to reduce ammonia, however, *Arthrobacter sp. LM1KK* has the most significant effect in examining chemical quality.

Keywords : Rabbit feces, *Alcaligenes sp*, *Arthrobacter sp*, Ammonia