

**KUANTITAS DAN KOMPOSISI KIMIA MANURE KAMBING
PERANAKAN ETAWAH DENGAN LANTAI KANDANG
YANG BERBEDA DI DESA GIRIKERTO,
TURI, SLEMAN**

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INTISARI

Penelitian ini bertujuan memberi gambaran tentang kuantitas dan komposisi kimia *manure* Kambing Peranakan Etawah (PE) yang dipelihara pada kandang yang berbeda di peternakan rakyat di Desa Girikerto, Turi, Sleman. Penelitian dilaksanakan di kelompok ternak kambing PE di desa Girikerto Turi, Sleman dan Laboratorium Ilmu Tanah Fakultas Pertanian, Universitas Gadjah Mada Yogyakarta. Parameter yang diamati terdiri dari konsumsi pakan, kuantitas *manure*, ukuran tubuh dan komposisi kimia *manure* yang meliputi kadar air, karbon (C), bahan organik (BO), total nitrogen (N), phosphor (P), kalium (K) dan rasio C/N. *Manure* diambil selama 3 hari berturut-turut pada 5 kandang panggung dan 5 kandang lantai tanah. Data yang diperoleh dihitung rata-ratanya dan standar deviasinya. Hasil pengamatan yang diperoleh menunjukkan pada kandang lantai tanah dengan berat badan kambing rata-rata $26,49 \pm 9,99$ kg menghasilkan rata-rata kuantitas *manure* $0,87 \pm 0,13$ kg atau 0,033/kg berat badan (3,3%) dan pada lantai panggung dengan berat badan rata-rata $38,11 \pm 11,87$ kg menghasilkan rata-rata kuantitas *manure* $1,48 \pm 0,07$ kg atau 0,039/kg berat badan (3,9%). Koefisien korelasi antara tipe lantai kandang dengan kuantitas *manure* menunjukkan nilai $r = 0,614$ dan $R^2 = 0,377$ sedangkan koefisien korelasi antara berat badan dengan kuantitas *manure* menunjukkan nilai $r = 0,988$ dan $R^2 = 0,975$. Pada kandang panggung kadar air *manure* kambing PE adalah 11,10 %, kadar C 40,89 %, BO 70,50 %, total N 2,64 %, P 0,92 %, K 0,62 %, rasio C/N 15,47 dan pada kandang lantai tanah kadar air *manure* kambing PE adalah 10,93 %, kadar C 46,56 %, BO 80,27 %, total N 3,01 %, P 0,94 %, K 1,21 %, rasio C/N 15,49. Kuantitas *manure* yang dapat dihasilkan per-tahun pada lantai panggung sebesar 127,87 ton dan kandang lantai tanah adalah 24,19 ton total 152,06 ton/tahun, maka jumlah *manure* kambing PE yang dihasilkan hanya mampu memupuk sekitar 75,5 ha atau 4,4 % dari jumlah lahan pertanian yang ada.

Kata kunci: *Manure* Kambing, Lantai kandang, Kuantitas dan komposisi kimia.

QUANTITY AND CHEMICAL COMPOSITIONS OF ETAWAH CROSSED BREED GOAT MANURE WITH DIFFERENT TYPE OF HOUSING ON AT THE GIRIKERTO VILLAGE, TURI, SLEMAN

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ABSTRACT

The purpose of the study was to discript quantity and chemical composition of Etawah crossed breed goat manure with different type of housing. The study was conducted at the village of Girikerto, Turi, Sleman. The data consisted of feed consumptions, quantity manure, body size measure and chemical compotions of manure including water content, carbon (C), organic matter (OM), nitrogen (N), phosphor (P), kalium (K), and C/N ratio. Manure has been collected for 3 consecutive 3 days. The data were showed in means and standard deviation. The result showed that goat in ground floor house with avarage a body weight 26.49 ± 9.99 kg produced manure 0.87 ± 0.13 kg or $0.033/\text{kg}$ body weigth (3.3%) and in lifted floor house with avarage body weight 38.11 ± 11.87 kg produced manure 1.48 ± 0.07 kg or $0.039/\text{kg}$ body weight (3.9%). Correlation coefficient between type housing on floor with quantity of manure showed value of $r = 0.614$ and $R^2 = 0.377$ and correlation coefficient between body weight with quantity of manure showed value of $r = 0.988$ dan $R^2 = 0.975$. On lifted floor house water content of goat manure was 11.10 %, carbon 40.89 %, OM 70.50 %, N 2.64 %, P 0.92 %, K 0.62 %, ratio C/N 15.47 % and on ground floor house water content was 10.93 %, carbon 46.56 %, OM 80.27%, N 3.01%, P 0.94%, K 1.21%, ratio C/N 15.49 %. The quantity of goat manure on lifted floor house was 127.87 ton and on ground floor house 24.19 ton, total manure production was 152.06 ton/year. The goat manure production can be applied for 75.5 ha or 4.4 % for land farm.

Key words : *Manure* goat, Housing type, Quantity and Chemical composition