

**PENGARUH PUPUK KANDANG FESES KAMBING DENGAN DOSIS  
BERBEDA TERHADAP PRODUKTIVITAS RUMPUT MEKSIKO  
(*Euchlaena mexicana*)**

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**INTISARI\***

Penelitian ini bertujuan untuk mengetahui produktivitas rumput Meksiko (*Euchlaena mexicana*) yang diberi pupuk kandang feses kambing dengan dosis yang berbeda. Penelitian ini dilakukan pada tanggal 14 April sampai dengan 19 Agustus 2020, di UPT Teaching Farm, Fakultas Agroindustri, Universitas Mercu Buana Yogyakarta untuk budidaya rumput Meksiko dan untuk analisis kadar air dilaksanakan di Laboratorium Produksi Ternak, Program Studi Peternakan, Fakultas Agroindustri, Universitas Mercu Buana Yogyakarta. Materi penelitian yang digunakan adalah rumput Meksiko dan pupuk kandang feses kambing. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan pola searah yang terdiri dari empat perlakuan dan setiap perlakuan diulang sebanyak tiga kali yaitu P0 (0 ton/ha), P1 (20 ton/ha), P2 (30 ton/ha), dan P3 (40 ton/ha). Variabel yang diamati yaitu tinggi tanaman, diameter batang, jumlah anakan, jumlah daun, produksi berat segar dan produksi berat kering. Data dianalisis menggunakan *Analysis of Variance* (ANOVA), jika terdapat perbedaan yang nyata maka dilanjutkan menggunakan *Duncan's New Multiple Range Test* (DMRT). Hasil penelitian menunjukkan rata-rata tinggi tanaman rumput Meksiko pada P0, P1, P2, dan P3 berturut-turut adalah 20,81; 35,09; 41,29; dan 53,67 cm. Rata-rata diameter batang rumput Meksiko pada P0, P1, P2, dan P3 berturut-turut adalah 1,81; 2,32; 3,24; dan 4,07 cm. Rata-rata jumlah anakan rumput Meksiko pada P0, P1, P2, dan P3 berturut-turut adalah 4,33; 6,27; 8,93; dan 10,60 pols. Rata-rata jumlah daun rumput Meksiko pada P0, P1, P2, dan P3 berturut-turut adalah 13,13; 17,53; 20,93; dan 23,33 helai/pols. Rata-rata produksi berat segar rumput Meksiko pada P0, P1, P2, dan P3 berturut-turut adalah 34,81; 47,91; 57,45; dan 65,71 ton/ha/tahun. Rata-rata produksi berat kering rumput Meksiko pada P0, P1, P2, dan P3 berturut-turut adalah 8,97; 14,91; 20,47; dan 26,39 ton/ha/tahun. Berdasarkan analisis variansi menunjukkan perbedaan yang sangat nyata ( $P < 0,01$ ) pada semua variabel yang diamati. Berdasarkan hasil penelitian dapat disimpulkan bahwa produktivitas rumput Meksiko terbaik pada perlakuan pemberian pupuk kandang feses kambing dengan dosis 40 ton/ha.

Kata kunci : Rumput Meksiko, produktivitas, pupuk kandang, feses kambing.

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# **THE EFFECT OF GOAT MANURE WITH DIFFERENT DOSAGE ON PRODUCTIVITY OF MEXICAN (*Euchlaena mexicana*) GRASS**

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## **ABSTRACT\*)**

The purpose of this research was to know the productivity of Mexican (*Euchlaena mexicana*) grass which was given of goat manure with different dosage. The research was conducted from April 14<sup>th</sup> to August 19<sup>th</sup> 2020. The cultivation of Mexican grass was carried out at the UPT Teaching Farm, Faculty of Agro-industry, University of Mercu Buana Yogyakarta. The water content analysis was carried out at Animal Production Laboratory, Faculty of Agro-industry, University of Mercu Buana Yogyakarta. The research materials used were Mexican grass and goat manure. This study used a Completely Randomized Design with a one-way pattern consisting of four treatments and each treatment was repeated three times, that were P0 (0 ton/ha); P1 (20 tons/ha), P2 (30 tons/ha), and P3 (40 tons/ha). The variable observed were plant height, stem diameter, number of tillers, number of leaves, production of fresh weight and production of dry weight. The data were analyzed by using Analysis of Variance (ANOVA), if there were significant differences continued with Duncan's New Multiple Range Test (DMRT). The results showed that the average plants height of Mexican grass at P0, P1, P2, and P3 were 20.81, 35.09, 41.29, and 53.67 cm. The average stem diameter of Mexican grass at P0, P1, P2, and P3 were 1.81, 2.32, 3.24, and 4.07 cm. The average number of tillers Mexican grass at P0, P1, P2, and P3 were 4.33, 6.27, 8.93, and 10.60 pols. The average number of leaves of Mexican grass at P0, P1, P2, and P3 were 13.13, 17.53, 20.93, and 23.33 sheet/pols. The average fresh weight production of Mexican grass at P0, P1, P2, and P3 were 34.81, 47.91, 57.45, and 65.71 ton/ha/year. The average dry weight production of Mexican grass respectively P0, P1, P2, and P3 were 8.97, 14.91, 20.47, and 26.39 ton/ha/year. Based on the analysis of variance, it showed real significant differences ( $P < 0.01$ ) in all observed variables. Based on the result of the study, it can be concluded that the best productivity of Mexican grass in the treatment of goat manure at a dosage of 40 tons/ha.

Keywords : Mexican grass, productivity, manure, goat manure.

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