ABSTRAK

PENGARUH UMUR POTONG YANG BERBEDA PADA HIJAUAN SORGUM (*Sorghum bicolor (L.) Moench*) TERHADAP PRODUKSI SEGAR, PRODUKSI BAHAN KERING, DAN PROPORSI BATANG DAUN

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Penelitian ini bertujuan untuk mengetahui pengaruh umur potong yang berbeda pada hijauan sorghum terhadap produksi segar, produksi bahan kering, proporsi batang daun, dan jumlah anakan. Penelitian ini dilaksanakan pada Maret 2020 hingga Juni 2020 di lahan kering yang terletak di Desa Sidodadi Asri, Kecamatan Jatiagung, Lampung Selatan dan uji analisis proksimat dilaksanakan di Laboratorium Nutrisi dan Makanan Ternak Jurusan Peternakan, Fakultas Pertanian, Universitas Lampung. Penelitian ini dilaksanakan secara eksperimental dengan rancangan acak lengkap (RAL) dengan 5 perlakuan dan 4 ulangan perlakuan pada penelitian yaitu P1 (umur panen 40 hari), P2 (umur panen 47 hari), P3 (umur panen 54 hari), P4 (umur panen 61 hari), dan P5 (umur panen 68 hari). Data yang diperoleh dianalisis menggunakan analisis ragam (anova) pada taraf nyata 5% dilanjutkan dengan uji polinomial orthogonal. Hasil penelitian menunjukkan pengaruh nyata (P>0,05) umur potong terhadap produksi segar, produksi bahan kering, dan proporsi batang daun. Hasil uji lanjut polynomial orthogonal produksi segar menghasilkan persamaan grafik $\hat{y}$ = - 46,908 + 1,1584x dengan nilai korelasi (r) sebesar 0,92 dan koefisien determinasi (R^2) sebesar 0,86. Hasil uji lanjut polynomial orthogonal produksi bahan kering menghasilkan persamaan grafik $\hat{y}$ = - 4,9124 + 0,1205x dengan nilai korelasi (r) sebesar 0,87 dan koefisien determinasi (R^2) sebesar 0,76. Hasil uji lanjut polynomial orthogonal proporsi batang menghasilkan persamaan grafik $\hat{y}$ = - 3,8592 + 1,0303x dengan nilai korelasi (r) sebesar 0,82 dan koefisien determinasi (R^2) sebesar 0,68 dan hasil uji lanjut polynomial orthogonal proporsi daun menghasilkan persamaan grafik $\hat{y}$ = 103,86 - 1,0303x dengan nilai korelasi (r) sebesar 0,82 dan koefisien determinasi (R^2) sebesar 0,68. Umur potong terbaik yang menghasilkan produksi segar, produksi bahan kering, dan proporsi batang daun yaitu umur potong 68 hari.

Kata kunci: Umur potong, Hijauan sorghum, Produksi segar, Produksi bahan kering, Proporsi batang daun.

ABSTRACT

EFFECT OF DIFFERENT AGE OF SORGUM (*Sorghum bicolor (L.) Moench*) ON FRESH PRODUCTION, PRODUCTION OF DRY MATERIALS, AND PROPORTION OF STEMS AND LEAVES

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This study aims to determine the effect of different cutting ages on sorghum forage on fresh production, dry matter production, proportion of stem leaves, and number of tillers. This research was conducted from March 2020 to June 2020 on dry land located in Sidodadi Asri Village, Jatiagung District, South Lampung and the proximate analysis test was carried out at the Animal Feed and Nutrition Laboratory, Department of Animal Husbandry, Faculty of Agriculture, University of Lampung. This research was carried out experimentally with a completely randomized design (CRD) with 5 treatments and 4 replications in the study, namely P1 (harvesting age 40 days), P2 (harvesting age 47 days), P3 (harvesting age 54 days), P4 (harvesting age 61 days), and P5 (harvest age 68 days). The data obtained were analyzed using analysis of variance (ANOVA) at 5% significance level followed by an orthogonal polynomial test. The results showed a significant effect (P>0.05) of cutting age on fresh production, dry matter production, and the proportion of stems and leaves. The results of the fresh production orthogonal polynomial test results yield a graphical equation $\hat{y} = -46.908 + 1.1584x$ with a correlation value (r) of 0.92 and a coefficient of determination (R2) of 0.86. Further test results of the orthogonal polynomial dry matter production yield a graphical equation $\hat{y} = -4.9124 + 0.1205x$ with a correlation value (r) of 0.87 and a coefficient of determination (R2) of 0.76. The results of the stem proportion orthogonal polynomial follow-up test yield a graphical equation $\hat{y} = -3.8592 + 1.0303x$ with a correlation value (r) of 0.82 and a coefficient of determination (R2) of 0.68 and the results of an orthogonal polynomial advanced test of leaf proportions yield an equation graph $\hat{y} = 103.86 - 1.0303x$ with a correlation value (r) of 0.82 and a coefficient of determination (R2) of 0.68. The best cutting age that resulted in fresh production, dry matter production, and the proportion of leaf stalks was 68 days of cutting.

Keywords: Cutting age, Forage sorghum, Fresh production, Ingredients production dry, Proportion of stem and leaf