ABSTRAK

PENGARUH CEKAMAN KEKERINGAN PADA TIGA VARIETAS RUMPUT GAJAH TERHADAP KANDUNGAN PROTEIN KASAR DAN SERAT KASAR

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Penelitian ini bertujuan untuk mengetahui pengaruh cekaman kekeringan dengan pemberian level air yang berbeda pada tiga varietas rumput gajah terhadap kandungan protein kasar dan serat kasar. Penelitian ini dilaksanakan pada Januari--Mei 2022 di Rumah Kaca Laboratorium Lapang Terpadu, Fakultas Pertanian Universitas Lampung. Analisis proksimat dilaksanakan di Laboratorium Nutrisi dan Makanan Ternak, Jurusan Peternakan, Fakultas Pertanian Universitas Lampung. Penelitian ini menggunakan Rancangan Petak Terbagi (*Split Plot Design*) yang terdiri dari 3 petak utama dan 4 anak petak. Petak utama terdiri dari V1 (*Pennisetum purpureum Red Napier*), V2 (*Pennisetum purpureum Zanzibar*), V3 (*Pennisetum purpureum cv Thailand*) dan anak petak terdiri dari beberapa taraf perlakuan KL1 (kapasitas lapang 100%), KL2 (kapasitas lapang 75%), KL3 (kapasitas lapang 50%), KL4 (kapasitas lapang 25%). Data yang diperoleh dianalisis ragam dengan taraf nyata 5% dan dilanjutkan menggunakan uji BNT (Beda Nyata Terkecil). Hasil penelitian pemberian perlakuan cekaman kekeringan berpengaruh nyata ($P<0,05$) terhadap protein kasar ketiga jenis varietas rumput gajah dan tidak berpengaruh nyata ($P>0,05$) terhadap serat kasar. Berdasarkan uji lanjut BNT 5% yg dilakukan pada protein kasar terdapat hasil berbeda nyata terhadap varietas red napier, zanzibar dan pakhcong serta semua perlakuan pemberian kapasitas lapang. Hasil terbaik terdapat pada pemberian KL1 (kapasitas lapang 100%) rumput pakhcong dengan kandungan protein kasar 12,11% dan kandungan serat kasar 32,82%.

Kata kunci: Cekaman kekeringan, Kapasitas lapang, Protein kasar, Serat kasar, dan Rumput gajah.

ABSTRACT

THE EFFECT OF DROUGHT STRESS ON THREE VARIETIES OF ELEPHANT GRASS ON CRUDE PROTEIN AND CRUDE FIBER

By

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This study aims to determine the effect of drought stress by giving different water levels to three varieties of elephant grass on crude protein and crude fiber content. This research was conducted in January--May 2022 at the Integrated Field Laboratory Greenhouse, Faculty of Agriculture, University of Lampung. The proximate analysis was carried out at the Nutrition and Animal Feed Laboratory, Department of Animal Husbandry, Faculty of Agriculture, University of Lampung. This study used a Split Plot Design which consisted of 3 main plots and 4 subplots. The main plots consisted of V1 (Pennisetum purpureum Red Napier), V2 (Pennisetum purpureum Zanzibar), V3 (Pennisetum purpureum cv Thailand) and subplots consisted of several treatment levels KL1 (100% field capacity), KL2 (75% field capacity), KL3 (field capacity 50%), KL4 (field capacity 25%). The data obtained were analyzed for variance with a significance level of 5% and continued using the BNT test (Least Significant Difference). The results of this study showed that drought stress treatment had a significant effect ($P<0,05$) on crude protein of the three types of elephant grass varieties and had no significant effect ($P>0,05$) on crude fiber. Based on the 5% BNT further test carried out on crude protein, there were significantly different results for the red napier, zanzibar and pakhcong varieties and all treatments were given field capacity. The best results were found in the provision of KL1 (100% field capacity) Pakhcong grass with a crude protein content of 12.11% and a crude fiber content of 32.82%.

Keywords: Drought stress, Field capacity, Crude protein, Crude fiber, and Elephant grass.