PERTUMBUHAN, PRODUKSI DAN KANDUNGAN NUTRIEN DUA VARIETAS *Brachiaria sp* YANG DIBERI PUPUK NPK DENGAN DOSIS YANG BERBEDA

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INTISARI

Penelitian ini bertujuan mengetahui pengaruh pemberian pupuk NPK dengan dosis yang berbeda terhadap pertumbuhan, produksi dan kandungan nutrien dua varietas *Brachiaria sp.* Biji *Brachiaria decumbens* cv. Basilisk (BD) dan *Brachiaria ruziziensis* cv. Kennedy (BR) digerminasikan, dipindah dalam *polybag* dengan kapasitas 5 kg dengan jarak tanam 50x50 cm. Perlakuan pupuk NPK dengan level 0 kg ha^{-1} (P0), 150 kg ha^{-1}(P1) dan 300 kg ha^{-1} (P2). Pemberian pupuk dilakukan 2 kali pada umur 30 hari dan 45 hari. Pengamatan tinggi tanaman, jumlah daun dan panjang tanaman dilakukan setiap minggu. Defoliasi hari ke-60, ditimbang, dioven 55ºC, digiling, dan dianalisis proksimat. Data dianalisis menggunakan metode rancangan acak lengkap pola faktorial 2x3 dilanjutkan *Duncan's Multiple Range Test* (DMRT). Hasil penelitian menunjukkan penambahan pupuk NPK secara nyata ($P<0,05$) mampu meningkatkan bahan kering, protein kasar dan lemak kasar. Bahan kering dari 13,56 % menjadi 14,93-12,61%, protein kasar dari 9,47% menjadi 9,99-10,99%, dan lemak kasar dari 7,20% menjadi 8,65-9,21%. Perbedaan varietas *Brachiaria sp* secara nyata ($P<0,05$) memiliki perbedaan nilai produksi segar, bahan kering, bahan organik lemak kasar dan TDN. Produksi segar BD 6 ton/ha dan BR 9 ton/ha, bahan kering BD 14,80% dan BR 12,60%, bahan organik BD 84,27% dan BR 82,70%, TDN BD 72,85% dan BR 50,10% dan lemak kasar BD 9,18% dan BR 7,52%. Berdasarkan penelitian disimpulkan bahwa penambahan pupuk NPK 150 dan 300 kg/ha meningkatkan kandungan nutrien, perbedaan beberapa varietas *Brachiaria sp* mempengaruhi produksi dan kandungan nutrien, serta interaksi BETN yang terbaik pada BD dengan level pupuk 150 kg/ha.

Kata kunci : Varietas *Brachiaria sp,* Dosis pupuk NPK, Kandungan nutrien, Pertumbuhan, Produksi.

THE GROWTH, PRODUCTIVITY, AND NUTRIENTS CONTENT OF TWO VARIETIES OF *Brachiaria sp* ON DIFFERENT LEVELS OF NPK FERTILIZER

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ABSTRACT

The aims of this study were to determine the effect of the NPK fertilizer addition with different levels on plant growth, productivity and nutrients content of some varieties of *Bracharia sp.* The seeds of *Brachiaria decumbens* cv. Basilisk (BD) and *Brachiaria ruziziensis* cv.Kennedy (BR) were germinated and moved into 5 kg capacity of polybag and planted in 50x50 cm space. The treatments of fertilization were 0 kg ha^{-1} (P0), 150 kg ha^{-1} (P1) and 300 kg ha^{-1} NPK fertilizer. The NPK fertilizer was given twice during the preservation. Height of plant, number of leaf and length of plant were observed every 7 days during 60 day. The plant was cut at the 60^{th} day, then weighed, the samples were then put in an oven with 55ºC temperature and grinded. The samples were analyzed by proximate analysis to determine nutrients content. Data were analyzed using analysis of various for completely randomized of factorial model (2x3) and the difference between means was analyzed using *Duncan's Multiple Range Test* (DMRT). The result showed that dry matter, crude protein, and crude fat were affected (P<0,05) by the addition of NPK fertilizer. Dry matter increased from 13,56% to 14,93-12,61%, crude protein from 9,47% to 9,99%-10,99%, and crude fat from 7,20% to 8,65%-9,21%. The fresh production, dry matter, organic matter, TDN and crude fat affected (P<0,05) by different varieties of *Brachiaria sp.* The fresh production of BD was 6 ton/ha and BR was 9 ton/ha, dry matter of BD was 14,80% and BR was 12,60%, organic matter of BD was 84,27% and BR was 82,70%, TDN of BD was 72,85% and BR was 50,10% and crude fat of BD was 9,18% and BR was 7,52%. Based on the study, it can be concluded that the addition of 150 and 300 kg/ha NPK fertilizer increased the nutrients content. However, the different varieties of *Brachiaria sp* may affect the productivity and nutrients content of the grass.

Keywords : Varieties of *Brachiaria sp,* NPK fertilizer, Nutrients content, Plant growth and Productivity.