

ABSTRAK

Penelitian ini berjudul “Pengaruh Perbedaan Level Pupuk Kandang dan NPK terhadap Pertumbuhan dan Produksi Bahan Kering Rumput Pakchong pada Lahan Pascatambang Kapur”. Ketersediaan hijauan dan lahan penanaman hijauan masih menjadi kendala pengembangan peternakan di Indonesia. Besaran pegunungan batu kapur di Indonesia membuat lahan pascatambang kapur perlu direklamasi sekaligus dimanfaatkan sebagai lahan penanaman hijauan. Penelitian ini bertujuan untuk mengetahui pengaruh perbedaan level pemberian pupuk kandang dan NPK yang efisien terhadap tinggi tanaman, diameter batang, dan produksi bahan kering Rumput Pakchong (*Pennisetum purpureum* cv Thailand) yang ditanam pada lahan pascatambang kapur. Metode pada penelitian menggunakan metode eksperimental dengan rancangan acak kelompok (RAK) pola faktorial 3 x 4 dengan 3 kelompok dengan total 36 unit percobaan. Faktor pertama berupa pemberian pupuk kandang (K) 0; 5; 10 ton/ha dan faktor kedua berupa pemberian pupuk NPK (N) 0; 100; 200; 300 kg/ha. Hasil analisis variansi didapatkan kombinasi pemberian pupuk kandang dan NPK memberi interaksi yang sangat nyata ($P < 0,01$) terhadap tinggi tanaman dan produksi bahan kering Rumput Pakchong, namun pertumbuhan diameter batang tidak menunjukkan adanya interaksi ($P > 0,05$). Hasil rata-rata tertinggi pada parameter tinggi tanaman didapatkan hasil sebesar $198.17 \pm 9,10$ pada perlakuan K2N3, diameter batang sebesar $19.94 \pm 3,95$ mm pada perlakuan K2N3, serta produksi bahan kering sebesar $5,03 \pm 0,67$ ton/ha pada perlakuan K2N3. Berdasarkan hasil penelitian disimpulkan bahwa penambahan Pupuk kandang dan NPK dapat meningkatkan tinggi tanaman, diameter batang, dan produksi bahan kering Rumput Pakchong secara signifikan. Perlakuan terbaik diperoleh pada pemberian pupuk kandang dengan dosis 10 ton/ha dan pupuk NPK pada dosis 300 kg/ha.

Kata kunci: rumput pakchong, pupuk kandang, pupuk NPK, tanah kapur

ABSTRACT

This research is entitled " The Effect of Different Levels of Manure and NPK on the Growth and Dry Matter Production of Pakchong Grass on Post-Limestone Mining Land". The limited availability of forage and forage cultivation land are still hard for livestock development in Indonesia. The extensive limestone mountain ranges in Indonesia makes post-limestone mining areas and need to be reclamated and used as land for forage cultivation. This research aims to determine the effect of different levels of manure and NPK fertilizer application on the plant height, stem diameter, and dry matter production of Pakchong grass (*Pennisetum purpureum* cv. Thailand) planted on post-limestone mining land. The method used in the study was the experimental method of Randomized Complete Block Design (RCBD) in a 3 x 4 factorial pattern and 3 groups with a total of 36 experimental units. The first factor were the manure application levels (K) 0; 5; 10 tons/ha and the second factor were the NPK fertilizer application levels (N) 0; 100; 200; 300 kg/ha. The results of the variance analysis showed that the combination of manure application and NPK gave a very real interaction ($P < 0.01$) on plant height and dry matter production of Pakchong grass, but the growth of stem diameter showed no interaction ($P > 0.05$). The highest average yield on the plant height parameter was obtained as a result of 198.17 ± 9.10 in K2N3, stem diameter of 19.94 ± 3.95 mm in K2N3, and dry material production weighing 5.03 ± 0.67 tons/ha in K2N3. Based on the results of the research concluded that the addition of manure and NPK fertilizer can significantly increase plant height, stem diameter, and dry matter production of Pakchong grass. The best treatment was obtained by applying manure at a levels of 10 tons/ha and NPK fertilizer at a levels of 300 kg/ha

Keywords: pakchong grass, manure, NPK fertilizer, limestone soil