

**KARAKTERISTIK MORFOLOGI DAN PRODUKSI BIOMASSA  
RUMPUT GAJAH (*Pennisetum purpureum* Schumach.) KULTIVAR  
GAMA UMAMI DAN PAKCHONG DI DATARAN TINGGI  
PETUNGKRIYONO, PEKALONGAN, JAWA TENGAH**

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**INTISARI**

Penelitian ini bertujuan untuk mengetahui karakteristik morfologi dan produksi Biomassa rumput gajah (*Pennisetum purpureum*) kultivar Gama Umami dan Pakchong di dataran tinggi Petungkriyono. Rumput ditanam dengan menggunakan stek batang dan dipelihara selama 4 bulan menggunakan metode Rancangan Acak Lengkap (RAL) dengan 4 pengulangan setiap kultivar. Selama masa pemeliharaan dilakukan pengamatan karakteristik morfologi meliputi pertambahan tinggi tanaman, panjang daun, lebar daun, diameter batang, dan jumlah tunas. Dosis pupuk yang digunakan yaitu pupuk NPK (15:15:15) 400 kg/ha/tahun dan urea 150 kg/ha/tahun. Setelah 4 bulan, rumput Gama Umami dan Pakchong dilakukan pemanenan untuk dihitung produksi biomassa (berat segar). Hasil pengamatan kemudian dilakukan analisis statistik dengan menggunakan SPSS. Berdasarkan hasil analisis penelitian lebar daun, panjang collar, dan diameter batang pada rumput Gama Umami dan Pakchong terdapat perbedaan yang signifikan ( $P < 0.05$ ). Sedangkan jumlah tunas, tinggi tanaman, panjang daun pada rumput Gama Umami dan Pakchong tidak terdapat perbedaan signifikan ( $P > 0.05$ ). Rumput Gama Umami memiliki produksi biomassa (berat segar) lebih tinggi ( $7,43 \text{ kg/m}^2$ ) dibandingkan Pakchong ( $6,65 \text{ kg/m}^2$ ). Berdasarkan karakteristik morfologi dan produksi biomassa, rumput Gama Umami dan Pakchong memiliki performa yang lebih baik di dataran tinggi Petungkriyono, Pekalongan, Jawa Tengah.

Kata kunci: Agrostologi, Hijauan Pakan Ternak, Hutan Konservasi

**MORPHOLOGY CHARACTERISTICS AND BIOMASS PRODUCTION  
OF ELEPHANT GRASS (*Pennisetum purpureum* Schumach.)  
CULTIVAR GAMA UMAMI AND PAKCHONG IN PETUNGKRIYONO  
HIGHLAND, PEKALONGAN, CENTRAL JAVA**

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**ABSTRACT**

This research was aimed to determine the morphological characteristics and biomass production of Gama Umami and Thai cultivars of elephant grass (*Pennisetum purpureum*) or commonly called Pakchong which were planted in the Petungkriyono highland. Grasses were planted using stem cuttings and maintained for 4 months using the Completely Randomized Design (CRD) method with 4 replications for each cultivar. During the maintenance period, morphological characteristics were observed, including the increase in plant height, leaf length, leaf width, stem diameter and number of shoots. The fertilizer dosage used is NPK fertilizer (15:15:15) 400 kg/ha/year and urea 150 kg/ha/year. After 4 months, Gama Umami and Pakchong were harvested to calculate biomass production (fresh weight). The results of the observations were then subjected to statistical analysis using SPSS. Based on the results of research analysis, there were significant differences in leaf width, collar length and stem diameter in Gama Umami and Pakchong grass ( $P < 0.05$ ). Meanwhile, there were no significant differences in the number of shoots, plant height, leaf length in Gama Umami grass and Pakchong ( $P > 0.05$ ). Gama Umami grass has a higher biomass production (fresh weight) (7.43 kg/m<sup>2</sup>) than Pakchong (6.65 kg/m<sup>2</sup>). Based on morphological characteristics and biomass production, Gama Umami cultivar has better performance in the Petungkriyono highland, than that of Pakchong cultivar.

**Keywords:** Agrostology, Forage, Forest conservation