

**PRODUKSI BIOMASSA DAN KANDUNGAN NUTRIEN
RUMPUT GAJAH (*Pennisetum purpureum*) KULTIVAR GAMA UMAMI
DAN MOTT DI KAWASAN HUTAN KONSERVASI DATARAN TINGGI
PETUNGKRIYONO, PEKALONGAN, JAWA TENGAH**

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INTISARI

Penelitian ini bertujuan untuk mengetahui produksi biomassa dan kandungan nutrisi rumput odot (*Pennisetum purpureum* cv. Mott) dan rumput gama umami (*Pennisetum purpureum* cv. gama umami) yang ditanam di kawasan hutan konservasi dataran tinggi Petungkriyono, Pekalongan. Rumput ditanam dengan menggunakan stek batang dan dipelihara selama empat bulan menggunakan metode rancangan acak lengkap (RAL) dengan empat kali pengulangan setiap kultivar. Dosis pupuk yang digunakan yaitu pupuk NPK 15:15:15 400 kg/ha/tahun dan urea 150 kg/ha/tahun. Setelah empat bulan, rumput gajah dilakukan pemanenan untuk dihitung produksi biomassa (berat segar) dan dianalisis proksimat untuk mengetahui kandungan bahan kering, bahan organik, protein kasar, serat kasar, dan lemak kasar. Hasil pengamatan kemudian dilakukan analisis statistik dengan menggunakan IBM SPSS *Statistic* 20. Rumput gama umami memiliki produksi biomassa (berat segar) lebih tinggi (7,43 kg/m²) dibandingkan rumput odot (5,56 kg/m²). Berdasarkan hasil analisis kandungan nutrisi, protein kasar (PK) rumput odot (15,82%) lebih tinggi ($P < 0,05$) dibandingkan rumput gama umami (12,24%). Kandungan serat kasar (SK) rumput gama umami (33,23%) lebih tinggi ($P < 0,05$) dibandingkan rumput odot (30,18%). Akan tetapi, produksi PK rumput gama umami (0,15 kg/m²) lebih tinggi dibandingkan rumput odot (0,08 kg/m²). Berdasarkan produksi biomassa dan PK, rumput gama umami memiliki kinerja yang lebih baik di kawasan hutan konservasi dataran tinggi Petungkriyono dibandingkan rumput odot.

Kata kunci: Adaptasi, Rumput gajah, Keanekaragaman rumput

**BIOMASS PRODUCTION AND NUTRIENT CONTENT OF ELEPHANT
GRASS (*Pennisetum purpureum*) GAMA UMAMI AND MOTT
CULTIVARS IN THE PETUNGKRIYONO HIGHLAND FOREST
COSERVATION AREA, PEKALONGAN, CENTRAL JAVA**

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ABSTRACT

This study aims to determine the biomass production and nutrient content of odot grass (*Pennisetum purpureum* cv. Mott) and gama umami grass (*Pennisetum purpureum* cv. gama umami) planted in the Petungkriyono highland conservation forest area, Pekalongan. Grass was planted using stems and maintained for 4 months using a completely randomized design (CRD) method with 4 repetitions for each cultivation. The dosage of fertilizer used was NPK 15:15:15 400 kg/ha/year and Urea 150 kg/ha/year. After 4 months, elephant grass was harvested to calculate biomass production (fresh weight) and proximate analysis to determine dry matter, organic matter, crude protein, crude fiber and crude fat content. The results of the investigation were then subjected to statistical analysis using IBM SPSS Statistics 20. gama umami grass had higher biomass (fresh weight) production (7.43 kg/m²) than odot grass (5.56 kg/m²). Based on the analysis of nutrient content, the crude protein (CP) of odot grass (15.82%) was significantly ($P<0.05$) higher than that of gama umami grass (12.24%). The crude fiber content of gama umami grass (33.23%) was significantly ($P<0.05$) higher than that of odot grass (30.18%). However, the crude protein production of gama umami (0,15 kg/m²) was higher than odot grass (0,08 kg/m²). Based on the production of biomass and crude protein, gama umami grass can be introduce as forage stock in conservation area of Petungkriyono, Pekalongan.

Kata kunci: Adaptation, Elephant Grass, Biodiversity