

**KARAKTERISTIK MORFOLOGI DAN PRODUKSI BIOMASSA
RUMPUT GAJAH (*Pennisetum Purpureum* Schumach)
KULTIVAR BIOVITAS 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 kultivar pakchong dan biovitas yang ditanam di dataran tinggi Petungkriyono, Pekalongan, Jawa tengah. Terdapat dua kultivar rumput gajah (*Pennisetum purpureum*) yang digunakan yaitu biovitas dan pakchong. Rumput ditanam dengan menggunakan stek batang dan dipelihara selama 4 bulan dilakukan 4 kali pengulangan setiap kultivar. Selama masa pemeliharaan dilakukan pengamatan karakteristik morfologi meliputi tinggi tanaman, panjang daun, lebar daun, diameter batang, dan jumlah tunas. Setelah 4 bulan, rumput gajah dilakukan pemanenan untuk dilakukan menghitung produksi biomassa (berat segar). Hasil pengamatan kemudian dianalisis independent student t-test menggunakan program statistik SPSS versi 26. Rumput gajah kultivar biovitas memiliki tinggi tanaman, panjang daun, lebar daun dan diameter batang lebih tinggi daripada kultivar pakchong. Jumlah tunas dan hasil produksi biomassa (berat segar) pada kultivar pakchong ($6,65 \pm 3,65$ kg/m²) lebih tinggi secara tidak signifikan dibandingkan kultivar biovitas ($6,24 \pm 1,20$ kg/m²). Berdasarkan karakteristik morfologi, rumput gajah kultivar biovitas memiliki pertumbuhan yang lebih baik di Dataran tinggi Petungkriyono dibandingkan kultivar pakchong dan Produksi biomassa kultivar biovitas dapat bersaing dengan kultivar pakchong.

Kata kunci: Pakchong, Biovitas, Morfologi, Performa, Adaptasi, Rumput gajah

MORPHOLOGICAL CHARACTERISTICS AND BIOMASS PRODUCTION OF ELEPHANT GRASS (*Pennisetum Purpureum* Schumach) CULTIVARS BIOVITAS AND PAKCHONG IN THE HIGHLANDS OF PETUNGKRIYONO, PEKALONGAN, CENTRAL JAVA
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ABSTRACT

The study aims to determine the morphological characteristics and biomass production of elephant grass cultivars grown in the highlands of Petungkriyono, Pekalongan, Central Java. There are 2 elephant grass cultivars (*Pennisetum purpureum*) used, namely biovitas and pakchong. The grass is planted using stem cuttings and maintained for 4 months using the Complete Randomized Design (CRD) method with four repetitions for each cultivar. During the maintenance period, morphological characteristics were observed including plant height, leaf length, leaf width, stem diameter, and number of shoots. After 4 months, elephant grass was harvested to calculate biomass production (fresh weight). The observation results were then analyzed using an independent student's t-test with the SPSS statistical program version 26 (2015). Biovitas elephant grass cultivar has plant height, leaf length, leaf width and stem higher than pakchong cultivar. The number of shoots and biomass production results (fresh weight) in the pakchong cultivar (6.65 ± 3.65 kg/m²) were higher, though not significantly, than the biovitas cultivar (6.24 ± 1.20 kg/m²). Based on morphological characteristics, biovitas elephant grass cultivar has better growth in Petungkriyono highlands compared to pakchong cultivar and biovitas cultivar biomass production can compete with pakchong cultivar.

Key Words: Biovitas, Pakchong, Morphological, Performance, Adaptation, Elephant grass