

## PENGARUH UMUR PEMANENAN TERHADAP PERTUMBUHAN, PRODUKSI, DAN KANDUNGAN NUTRIEN BAYAMAN (*Asystasia gangetica*) DI BAWAH NAUNGAN

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### INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh umur pemanenan terhadap pertumbuhan, produksi, dan kandungan nutrisi tanaman bayaman (*Asystasia gangetica*) yang ditanam di bawah naungan. Rancangan acak lengkap pola searah digunakan pada penelitian ini untuk menguji pengaruh umur pemanenan 50, 65, dan 80 hari setelah tanam (HST) pada tanaman bayaman (bibit umur 21 hari) yang ditanam di bawah naungan (paranet) pada petak tanah regosol 1 x 1 m<sup>2</sup> dengan jarak tanam 60 x 60 cm. Masing-masing dilakukan dengan tiga ulangan sehingga terdapat 9 petak. Variabel yang diamati meliputi pertumbuhan vegetatif (tinggi tanaman, panjang tanaman, panjang daun, lebar daun, dan persentase penutupan tanah), produksi (segar, bahan kering, bahan organik, protein kasar, dan *total digestible nutrients*), serta kandungan nutrisi (bahan kering, bahan organik, serat kasar, lemak kasar, protein kasar, bahan ekstrak tanpa nitrogen, dan *total digestible nutrients*). Data yang diperoleh dianalisis, perbedaan antar rerata diuji dengan *Duncan's Multiple Range Test* (DMRT). Hasil penelitian menunjukkan bahwa umur pemanenan berpengaruh nyata ( $P < 0,05$ ) terhadap tinggi tanaman, panjang tanaman, panjang daun, lebar daun, persentase penutupan tanah, produksi segar, produksi bahan kering, produksi bahan organik, produksi protein kasar, produksi *total digestible nutrients* (TDN), kandungan serat kasar, lemak kasar, protein kasar, dan *total digestible nutrients* (TDN), sedangkan kandungan bahan kering dan bahan ekstrak tanpa nitrogen (BETN) berpengaruh tidak nyata ( $P > 0,05$ ) terhadap umur pemanenan. Produksi protein kasar tanaman bayaman pada umur pemanenan 80 HST (0,85 ton/ha) lebih tinggi ( $P < 0,05$ ) dibandingkan umur pemanenan 65 HST (0,54 ton/ha) dan 50 HST (0,36 ton/ha). Berdasarkan penelitian dapat disimpulkan bahwa perlakuan umur pemanenan 80 hari setelah tanam memberikan hasil pertumbuhan, produksi, kandungan bahan organik, serat kasar, dan *total digestible nutrients* (TDN) lebih tinggi, namun kandungan protein kasar dan lemak kasar lebih rendah.

Kata kunci: *Asystasia gangetica*, Kandungan nutrisi, Naungan, Pertumbuhan, Produksi, Umur pemanenan

**THE EFFECT OF HARVESTING AGE ON THE GROWTH,  
PRODUCTION, AND NUTRIENT CONTENT OF BAYAMAN  
(*Asystasia gangetica*) UNDER SHADE**

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**ABSTRACT**

This study was aimed to determine the effect of harvesting age on the growth, production, and nutrients content of bayaman plants (*Asystasia gangetica*) under shade. A completely randomized design with one-way ANOVA was used in this study to examine the effect of harvesting age 50, 65 and 80 days after planting (DAP) on bayaman plants (21 days old seedlings) planted under shade (paranet) on 1 x 1 m<sup>2</sup> regosol soil plots with spacing of 60 x 60 cm. Each was carried out with three replications so that there were 9 plots. The variables observed in the study were vegetative growth (plant height, plant length, leaf length, leaf width, and percentage of covering area), production (fresh, dry matter, organic matter, crude protein, and total digestible nutrients), and nutrients content (dry matter, organic matter, crude fiber, crude fat, crude protein, nitrogen free extract, and total digestible nutrients). The data obtained were analyzed, the differences between the means were tested by Duncan's Multiple Range Test (DMRT). The results showed that harvesting age had a significant effect ( $P < 0.05$ ) on plant height, plant length, leaf length, leaf width, percentage of covering area, fresh production, dry matter production, organic matter production, crude protein production, total digestible nutrients production, crude fiber content, crude fat content, crude protein content, and total digestible nutrients content, while the dry matter and nitrogen free extract content had no significant effect ( $P > 0.05$ ) on harvesting age. The crude protein production of bayaman plants at harvesting age of 80 DAP (0.85 tons/ha) was higher ( $P < 0.05$ ) than harvesting age of 65 DAP (0.54 tons/ha) and 50 DAP (0.36 tons/ha). Based on the research, it can be concluded that the harvesting age of 80 DAP would increase the growth, production, organic matter content, crude fiber content, and total digestible nutrients content, but crude protein content and crude fat content would decrease.

Key words: *Asystasia gangetica*, Growth, Harvesting age, Nutrient content, Production, Shade