

PENGARUH NAUNGAN TERHADAP MORFOLOGI, PRODUKSI BIOMASSA DAN KANDUNGAN NUTRIEN TANAMAN BAYAMAN (*Asystasia gangetica*)

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INTISARI

Tujuan dari penelitian ini yaitu mengetahui pengaruh naungan terhadap morfologi, produksi biomassa dan kandungan nutrien tanaman bayaman (*Asystasia gangetica*). Penelitian dibagi menjadi 2 tahap yaitu penanaman hingga pemanenan dan analisis kandungan nutrien. Bibit tanaman *Asystasia gangetica* diambil dari Kebumen Jawa Tengah ditanam di lahan milik Fakultas Peternakan Universitas Gadjah Mada pada plot seluas 8 x 2 m². Lahan terbagi menjadi 2 blok dengan perlakuan intensitas cahaya yang berbeda yaitu menggunakan naungan (50% paranet) dan tanpa menggunakan naungan. Setiap blok terbagi menjadi 3 petak. Masing masing petak berukuran 1 x 1 m² ditanami dengan 4 bibit *Asystasia gangetica* berasal dari daerah Kebumen yang telah disemaikan selama 14 hari pada *polybag* kemudian ditanam dengan jarak tanam 60 cm. *Asystasia gangetica* akan dipanen pada umur 56 hari setelah tanam (HST). Variabel yang akan diamati yaitu morfologi tanaman (tinggi tanaman, panjang tanaman, lebar daun, panjang daun, jumlah daun dan jumlah cabang primer), produksi (berat segar, bahan kering dan bahan organik) dan kandungan nutrien (bahan kering, bahan organik, protein kasar, lemak kasar dan serat kasar). Data yang diperoleh kemudian dianalisis dengan *T-test*. Analisis statistik dilakukan dengan bantuan *software* personal komputer *Statistical Product and Service* (SPSS). Hasil penelitian menunjukkan bahwa terdapat perbedaan nyata ($P < 0,05$) pada tinggi tanaman, panjang tanaman, lebar daun, panjang daun, bahan kering, bahan organik, protein kasar, BETN dan TDN, namun menunjukkan perbedaan tidak nyata ($P > 0,05$) pada jumlah daun dan cabang primer, kadar lemak kasar dan serat kasar, dan produksi segar, bahan kering dan bahan organik. Berdasarkan hasil penelitian yang telah dilaksanakan dapat disimpulkan bahwa naungan berpengaruh terhadap morfologi dan kandungan nutrien. Perlakuan naungan meningkatkan lebar daun, panjang daun dan protein kasar tetapi menurunkan tinggi tanaman, panjang tanaman, bahan kering, bahan organik, BETN, TDN.

Kata kunci : *Asystasia gangetica*, Bayaman, Naungan, Morfologi tanaman, Produksi biomassa, Kandungan nutrien

EFFECT OF SHADE ON MORPHOLOGY, BIOMASS PRODUCTION AND NUTRIENT CONTENT OF BAYAMAN (*Asystasia gangetica*)

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ABSTRACT

The purpose of this study was to determine the effect of shading on morphology, biomass production and nutrient content of the bayaman plant (*Asystasia gangetica*). The research was divided into 2 stages, namely planting to harvesting and analysis of nutrient content. *Asystasia gangetica* seeds were taken from Kebumen, Central Java, and planted on land belonging to the Faculty of Animal Husbandry, Gadjah Mada University, on a plot of 8 x 2 m². The land is divided into 2 blocks with different light intensity treatments, namely using shade (50% paranet) and without using shade. Each block is divided into 3 tiles. Each plot measuring 1 x 1 m² was planted with 4 *Asystasia gangetica* seeds from the Kebumen area which had been sown for 14 days in polybags and then planted with a spacing of 60 cm. *Asystasia gangetica* will be harvested at the age of 56 days after planting. The variables to be observed were plant morphology (plant height, plant length, leaf width, leaf length, number of leaves and number of primary branches), production (fresh weight, dry matter and organic matter) and nutrient content (dry matter, organic matter, protein crude oil, crude fat and crude fiber). The data obtained were then analyzed by T-test. Statistical analysis was performed with the help of Statistical Product and Service (SPSS) personal computer software. The results showed that there were significant differences ($P < 0.05$) in plant height, plant length, leaf width, leaf length, dry matter, organic matter, crude protein, BETN and TDN, but showed no significant differences ($P > 0, 05$) on the number of leaves and primary branches, crude fat and crude fiber content, and production of fresh, dry matter and organic matter. Shade treatment increased leaf width, leaf length and crude protein but decreased plant height, plant length, dry matter, organic matter, BETN, TDN.

Key words: *Asystasia gangetica*, Bayaman, Shade, Plant morphology, Biomass production, Nutrient content