

ABSTRAK

Intensifikasi lahan melalui sistem tanam campuran merupakan salah satu solusi dalam penyediaan hijauan pakan berkualitas. Penelitian bertujuan untuk mengkaji pengaruh sistem tanam campuran rumput Red Napier (*Pennisetum purpureum* cv. *Purple*) dengan legum Gamal (*Gliricidia sepium*) dan perbedaan umur potong terhadap rasio daun batang Red Napier dan jumlah klorofil daun Red Napier. Penelitian dilaksanakan di *Experimental Farm*, Fakultas Peternakan, Universitas Jenderal Soedirman dari bulan Maret 2024-Januari 2025 menggunakan Rancangan Acak Kelompok (RAK) pola Split Plot. Main plot adalah sistem tanam (monokultur dan campuran) dan sub plot adalah umur potong (42, 56, dan 70 hari). Variabel yang diteliti adalah rasio daun batang dan jumlah klorofil daun Red Napier. Hasil penelitian menunjukkan bahwa umur potong berpengaruh sangat nyata ($P < 0,01$) terhadap rasio daun batang Red Napier, dengan nilai tertinggi diperoleh pada umur potong 42 hari, sedangkan sistem tanam tidak memberikan pengaruh signifikan ($P > 0,05$) terhadap rasio daun batang Red Napier, perlakuan sistem tanam maupun umur potong tidak menunjukkan pengaruh yang signifikan ($P > 0,05$) terhadap jumlah klorofil daun Red Napier. Disimpulkan bahwa umur potong 42 hari merupakan waktu panen optimal untuk mendapatkan rasio daun batang Red Napier terbaik, sedangkan jumlah klorofil relatif stabil hingga umur potong 70 hari pada kedua sistem tanam.

Kata kunci: Red Napier, Gamal, sistem tanam, umur potong, rasio daun batang, jumlah klorofil.

ABSTRACT

Land intensification through an intercropping system is one solution for providing high-quality forage. This study aimed to evaluate the effect of intercropping Red Napier grass (*Pennisetum purpureum* cv. *Purple*) with Gamal legume (*Gliricidia sepium*) and different cutting ages on the leaf-stem ratio and leaf chlorophyll content of Red Napier grass. The research was conducted at the Experimental Farm, Faculty of Animal Science, Jenderal Soedirman University, from March 2024 to January 2025, using a Randomized Complete Block Design (RCBD) in a split-plot arrangement. The main plot consisted of the cropping systems (monoculture and intercropping), and the sub-plot consisted of the cutting ages (42, 56, and 70 days). The observed variables were the leaf-stem ratio and leaf chlorophyll content of Red Napier grass. The results showed that cutting age had a highly significant effect ($P < 0.01$) on the leaf-stem ratio of Red Napier grass, with the highest value obtained at 42 days of cutting age. Meanwhile, the cropping system did not have a significant effect ($P > 0.05$) on the leaf-stem ratio. The cropping system and cutting age treatments did not show any significant effect ($P > 0.05$) on the leaf chlorophyll content of Red Napier grass. It was concluded that a cutting age of 42 days is the optimal harvesting time to obtain the best leaf-stem ratio of Red Napier grass, while the chlorophyll content was relatively stable up to 70 days of cutting age in both cropping systems.

Keywords: Red Napier, Gamal, intercropping system, cutting age, leaf-stem ratio, chlorophyll content.