

**PENGARUH MULSA TERHADAP PERTUMBUHAN VEGETATIF
TANAMAN ALFALFA TROPIK (*Medicago sativa* cv. Kacang Ratu BW)
PADA GENERASI BERBEDA**

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh mulsa terhadap pertumbuhan vegetatif tanaman alfalfa tropik generasi pertama dan generasi kedua. Penelitian dilaksanakan di lahan pertanian Koperasi Bhakti Wanadelima Banyuroto, Nanggulan, Kulon Progo. Penelitian ini menggunakan 8 plot yang diberi mulsa plastik hitam perak dan 8 plot tanpa mulsa plastik hitam perak dengan generasi pertama dan generasi kedua sebagai blok. Variabel yang diamati yaitu pertumbuhan vegetatif alfalfa tropik, meliputi tinggi tanaman, jumlah daun, jumlah tunas, warna daun, diameter batang, produksi hijauan segar, kandungan bahan kering, dan kandungan bahan organik. Pengukuran dilakukan setiap pekan, dari minggu ke-1 hingga minggu ke-11. Rancangan percobaan penelitian ini yaitu Rancangan Acak Kelompok Lengkap (RAKL) atau *Randomized Complete Block Design* (RCBD). Data penelitian dianalisis menggunakan ANOVA berdasarkan rancangan RCBD dengan bantuan *software Statical Product and Service Solution* (SPSS) versi 30. Berdasarkan hasil penelitian menunjukkan bahwa perlakuan mulsa tidak memberikan pengaruh signifikan terhadap pertumbuhan vegetatif tanaman alfalfa tropik, produksi segar, bahan kering, dan bahan organik. Generasi sebagai blok tidak berpengaruh signifikan terhadap bahan kering dan bahan organik, namun berpengaruh terhadap pertumbuhan vegetatif dan produksi segar alfalfa tropik. Hasil penelitian dapat disimpulkan bahwa alfalfa tropik memiliki pertumbuhan vegetatif dan produksi segar yang optimal meskipun tanpa penggunaan mulsa. Generasi kedua memberikan pertumbuhan vegetatif dan produksi segar lebih tinggi dibandingkan generasi pertama.

(Kata kunci : Alfalfa Tropik, Mulsa, Pakan, Pertumbuhan Vegetatif)

**THE EFFECT OF MULCH ON THE VEGETATIVE GROWTH OF
TROPICAL ALFALFA PLANTS (*Medicago sativa* cv. Kacang Ratu BW)
IN DIFFERENT GENERATIONS**

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ABSTRACT

This study aimed to determine the effect of mulch on the vegetative growth of first generation and second generation of tropical alfalfa plants. The research was conducted on the farm of Bhakti Wanadelima Banyuroto Cooperative, Nanggulan, Kulon Progo. This study used 8 plots with black silver plastic mulch and 8 plots without black silver plastic mulch. Meanwhile, the first generation and second generation as a blocks. The observed variables were vegetative growth of alfalfa, including plant height, number of leaves, number of buds, leaf color, stem diameter, fresh forage production, dry matter content, and organic matter content. Measurement of each variable is carried out every week from week 1 to week 11. The experimental design in this study was Randomized Complete Block Design (RCBD). Research data were analyzed using ANOVA based on RCBD with the help of *Statistical Product and Service Solution* (SPSS) software version 30. Based on the results showed that mulch treatment did not affect the vegetative growth of tropical alfalfa plants, fresh produce, dry matter, and organic matter. Generation as a block has no significant effect on dry matter and organic matter, but has an effect on vegetative growth and fresh production of tropical alfalfa. The results can be concluded that tropical alfalfa has optimal vegetative growth and fresh production even without the use of mulch. The second generation provides higher vegetative growth and fresh production than the first generation.

(Keywords: Feed, Mulch, Tropical Alfalfa, Vegetative Growth)