

PENGARUH PERBEDAAN UMUR SEMAIAN, GENERASI, DAN PUPUK DASAR SP36 TERHADAP PRODUKTIVITAS DAN KANDUNGAN NUTRIEN TANAMAN ALFALFA (*Medicago sativa*)

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh perbedaan umur semaian, generasi, dan pupuk SP36 terhadap produktivitas dan kandungan nutrisi alfalfa (*Medicago sativa*). Penelitian ini dilakukan dengan menggunakan rancangan acak lengkap pola faktorial 2x2x2 dengan faktor pertama umur semai yang terdiri dari 1 bulan dan 2 bulan, faktor kedua generasi 2 dan 3, dan faktor ketiga dipupuk dan tidak dipupuk dengan pupuk SP36. Masing-masing perlakuan dilakukan 3 ulangan. Variabel pengamatan (pertumbuhan, produksi biomassa, dan kandungan nutrisi). Data yang diamati adalah produktivitas dan kandungan nutrisi. Data yang diperoleh dianalisis variansi sesuai rancangan acak lengkap pola faktorial dan beda antar rerata diuji dengan Duncan's Multiple Range Test (DMRT). Hasil penelitian menunjukkan bahwa umur semai 2 bulan menghasilkan produksi tanaman yang tinggi, sementara umur semai 1 bulan menghasilkan kandungan nutrisi yang tinggi ($P < 0,05$). Generasi F2 menghasilkan kandungan nutrisi yang tinggi, sementara generasi F3 menghasilkan produksi tanaman yang tinggi ($P < 0,05$). Perlakuan pupuk dasar SP-36 menghasilkan kandungan nutrisi dan produksi yang tinggi ($P < 0,05$). Penelitian ini menyimpulkan bahwa tinggi tanaman (43,24cm), jumlah daun (51,92 helai) dan bahan kering (27,56%) tertinggi pada umur semaian 2 bulan. Bahan organik (93,23%) dan serat kasar (25,08%) tertinggi pada umur semaian 1 bulan. Tinggi tanaman (43,96%) tertinggi pada generasi F3, bahan organik (93,23%) tertinggi pada generasi F2. Bahan kering (28,86%) tertinggi pada pemupukan SP-36.

Kata kunci : Alfalfa, Generasi, Pupuk SP36, Umur semaian

THE EFFECT OF SEEDLING AGES, GENERATIONS, AND SP36 FERTILIZERS ON THE PRODUCTIVITY AND NUTRIENT CONTENT OF ALFALFA (*Medicago sativa* L.)

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ABSTRACT

This study aimed to determine the effect of the application seedling ages, generations and SP36 fertilizers on the productivity and nutrient content of alfalfa plants (*Medicago sativa*). The experiment was used in *Completely Randomized Design* using 2x2x2 factorial with three factorials and replications. The first factor was seedling ages (1 month and 2 months). Second factors were generations 2 and 3, and third factor was phosphate fertilizer SP36 and without phosphate fertilizer SP36. The variables measured were plants growth (height of plants, branches, and leaves of plants), productivity, and nutrient content (dry matter, organic matter, crude protein, and crude fiber). If there are any differences between treatments, *Duncan's Multiple Range Test* is used. The result showed that seedling ages in 2 months produced the highest of plants productivity, seedling ages in 1 month produced the highest of nutrient content ($P < 0,05$). Generation F3 produced the highest of plants productivity, and generation F2 produced the highest of nutrient content ($P < 0,05$). The nutrient content and plant productivity for SP-36 fertilizer was the highest ($P < 0,05$). Plants productivity consisted of height of plants, amount of branches, amount of leaves, biomass, dry matter productivity, and organic matter productivity. The study concluded that the highest of height of plants (43,24cm), amount of leaves (51,92 blade), and dry matter (27,56%) was seedling ages 2 months. The highest of organic matter (93,23%) and crude fiber (25,08%) was seedling ages 1 month. The highest of height of plants (43,96%) was generations F3 and organic matter (93,23%) was generations F2. Dry matter (28,86%) was SP36 fertilizers

Key words : Alfalfa, Generations, SP-36 fertilizer, seedling age