PENGARUH JENIS PUPUK DAN LAMA PENCAHAYAAN TERHADAP KANDUNGAN NUTRIEN TANAMAN ALFALFA (*Medicago sativa* L.) *REGROWTH* I DAN II

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INTISARI

Penelitian ini bertujuan untuk mempelajari dan mengetahui pengaruh jenis pupuk dan lama pencahayaan terhadap kandungan nutrien tanaman alfalfa (*Medicago sativa* L) pada *regrowth* I dan II. Variabel penelitian yaitu bahan kering (BK), bahan organik (BO), protein kasar (PK), dan lemak kasar (LK). Penelitian ini menggunakan rancangan acak lengkap (RAL) pola faktorial (5x3) dan *t-test*, jika signifikan dilanjutkan dengan uji *duncan's multiple range test* (DMRT). Faktor yang pertama merupakan jenis pupuk yang terdiri atas P0=kontrol, P1=pupuk hijau dan dolomit, P2=pupuk kandang, pupuk hijau dan dolomit, P3=dolomit dan P4=pupuk hijau® dan dolomit. Faktor kedua merupakan lama pencahayaan yang terdiri atas C0=12 jam, C1=16 jam, C2=20 jam. Hasil pengamatan menunjukkan bahwa perlakuan jenis pupuk berpengaruh nyata (P<0,05) terhadap kandungan BK *regrowth* I, kandungan PK *regrowth* II, dan kandungan lemak kasar *regrowth* I dan II sedangkan perlakuan lama pencahayaan berpengaruh nyata (P<0,05) terhadap kandungan BK *regrowth* I, kandungan BO *regrowth* I dan II, kandungan PK *regrowth* II, dan kandungan LK *regrowth* I dan II. Interaksi antara perbedaan pupuk dan lama pencahayaan berpengaruh nyata (P<0,05) terhadap kandungan BK *regrowth* I, dan kandungan LK *regrowth* I dan II. Berdasarkan hasil penelitian dapat disimpulkan bahwa jenis pupuk hijau® dan dolomit menghasilkan kandungan nutrien *regrowth* I dan II tertinggi yaitu 22,18% dan 22,28% BK, 29,32% dan 20,39% PK, 9,38% dan 9,31% LK. Kandungan nutrien yang menghasilkan hasil tertinggi *regrowth* I dan II pada lama pencahayaan 12 jam yaitu 28,80% dan 20,44% PK, 16 jam yaitu 20,92% dan 21,49% BK, 20 jam yaitu 89,38% dan 87,73% BO, 9,16% dan 9,07% LK.

Kata kunci : Kandungan nutrien, Lama pencahayaan, *Medicago sativa*, Pupuk, *Regrowth*

THE EFFECT OF FERTILIZER TYPES AND PHOTOPERIODE ON NUTRIENT CONTENT OF *REGROWTH* I DAN II OF ALFALFA (*Medicago sativa* L.)

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ABSTRACT

This research was conducted to study the effect of types fertilizer and photoperiode on the nutrient content of regrowth I and II of alfalfa (*Medicago sativa* L.). The variables measured is nutrient content are dry matter (DM), organic matter (OM), crude protein (CP), and crude fat (CF). Analysis statistics using Completely Randomized Design (CRD) factorial pattern 5x3 and t-test, if significant effect was continued with duncan's multiple range test (DMRT). The first factor was types of fertilizer consisted of, i.e. P0=control, P1=green fertilizer and dolomite, P2=manure, green fertilizer and dolomite, P3=dolomite, and P4=green fertilizer® and dolomite. The second factor was photoperiode consisted of, i.e. C0=12 h, C1=16 h, and C3=20 h. The results showed that the fertilizer types treatments were significantly affected (P<0,05) on regrowth I DM, regrowth II CP, and regrowth I and II CF. While photoperiode treatment were significantly affected (P<0,05) on regrowth I DM, regrowth I and II OM, regrowth II CP, and regrowth I and II CF. The interaction between the types fertilizer and photoperiode treatment were significantly affected (P<0,05) on regrowth I DM, and regrowth I and II CF. Based on research results can be concluded that the types of fertilizer green® and dolomite to produce the nutrient content regrowth I and II is the highest of, i.e. 22,18% dan 22,28% DM, 29,32% dan 20,39% CP, 9,38% dan 9,31% CF regrowth I and II. The nutrient content regrowth I and II that produce the highest results of photoperiode i.e. 12 h = 28,80% and 20,44% CP, 16 h = 20,92% and 21,49% DM, 20 h = 89,38% and 87,73% OM, 9,16% and 9,07% CF.

Keywords : Fertilizer, *Medicago sativa,* Nutrient content, Photoperiode, Regrowth