Pengaruh Pemupukan Pada Produktivitas Tanaman Dan Perbedaan Metode Pengeringan Terhadap Kualitas Fisik Kimia *Hay* Alfalfa (*Medicago sativa* L)

Anita Mustika

15/379746/PT/06943

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan pupuk *cocopeat* dan mengetahui kualitas terbaik dari metode pengeringan *hay* tanaman alfalfa (*Medicago sativa* L) pada produktivitas, kualitas fisik dan komposisi kimia. Penelitian dilakukan di Laboratorium Hijauan Makanan Ternak dan Pastura dan Laboratorium Biokimia Nutrisi. Data yang diperoleh diuji statistik dengan analisis variansi rancangan acak lengkap pola searah dan apabila menunjukan perbedaan dilanjutkan dengan uji beda *Duncan's New Multiple Range Test* (DMRT). Faktor dari penambahan pemupukan dengan menggunakan cocopeat diamati tinggi tanaman setiap 2 hari sekali. Metode pengeringan *hay* terdiri dari 3 metode yaitu pengeringan langsung dibawah paparan sinar matahari, pengeringan di dalam rumah kaca dengan cara meletakan tanaman alfalfa dan menutupinya dengan terpal untuk menghindari paparan sinar matahari secara langsung, dan dengan pengeringan menggunakan oven pada suhu 55^0C. Hasil penelitian menunjukkan bahwa pemberian pupuk *cocopeat* berbeda nyata ($p<0,05$) produktivitas tanaman alfalfa yang ditunjukan dengan pertambahan tinggi tanaman dan berat produksi serta proses pengeringan *hay* sangat berpengaruh terhadap komposisi kimia tanaman alfalfa (*Medicago sativa* L). Metode pengeringan berpengaruh nyata terhadap komposisi kimia hay alfalfa. Proses pengeringan dengan sistem penjemuran langsung dapat menurunkan kandungan lemak kasar dan meningkatkan kandungan serat kasar. Sistem penjemuran tidak langsung maupun langsung terkena paparan sinar matahari memungkinkan untuk diterapkan pada masyarakat

Kata kunci: Komposisi kimia, *Medicago sativa* L, Metode pengeringan, Pemupukan, Pertumbuhan, Suhu

The Effect of Fertilization on Plant Productivity and The Difference of Drying Methods to the Physical-Chemical Quality of Hay Alfalfa (*Medicago sativa* L)

Anita Mustika

15/379746/PT/06943

ABSTRACT

The objectived of this research was to ascertain the effect of increasing of Cocopeat fertilizer and to ascertain the optimum quality based on drying method of alfalfa's hay plant (*Medicago sativa* L.). to the productivity, physical quality and chemical composition. This research has been done in Laboratory of forage and Pasture and Laboratory of Biochemistry Nutrition. The data were tested analysis mean differences were analyzed with Duncan's New Multiple Range Test (DMRT). The effect factor of fertilizer was observed every 2 days by measuring plant length. Hay drying method consists of 3 methods, that were Drying directly under the sun exposure, drying in a greens house by placing alfalfa plants which were expanded of surface area and cover it by tarps to avoid the sun exposure directly, and drying it by oven about 55C. The result showed that the fertilizer was effected to increase the alfalfa plants productivity which was showed by increase in plant height and weight of production, hay drying process was influenced on the chemical composition of alfalfa plants (*Medicago sativa* L) directly. The Drying method was significant affected on chemical composition of alfalfa hay plant. The direct drying process reduced crude fat content, and increasing crude fiber content. The Direct drying process and the indirect drying process that was exposed to sunlight allows it to be applied by community or farmer.

Keywords: Chemical composition, drying method, *Medicago sativa* L, fertilizer, temperature.