ABSTRAK

PENGARUH BERBAGAI CAMPURAN DAUN SINGKONG ONGGOK TERFERMENTASI *ASPERGILLUS NIGER* TERHADAP KUALITAS BAHAN KERING, SERAT KASAR, DAN PROTEIN KASAR

Oleh

HENDRO PRASTIO

Penelitian ini bertujuan untuk pengaruh fermentasi campuran daun singkong onggok menggunakan *Aspergillus niger* terhadap kualitas kimia. Penelitian ini dilaksanakan pada Agustus--September 2021 di di Laboratorium Nutrisi dan Makanan Ternak, Jurusan Peternakan, Fakultas Pertanian, Universitas Lampung. Rancangan percobaan yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan 5 perlakuan dan 3 ulangan. Perlakuan yang diberikan yaitu onggok tanpa campuran + *Aspergillus niger* 1% BK (P0), daun singkong tanpa campuran + *Aspergillus niger* 1% BK (P1), onggok 20% + daun singkong 80% + *Aspergillus niger* 1% BK (P2), onggok 40% + daun singkong 60% + *Aspergillus niger* 1% BK (P3), dan onggok 60% + daun singkong 40% + *Aspergillus niger* 1% BK (P4). Peubah yang diamati pada penelitian ini meliputi bahan kering, serat kasar, dan protein kasar fermentasi campuran daun singkong onggok. Data yang diperoleh dianalisis menggunakan analisis ragam dengan taraf nyata 1% atau 5% dan dilanjutkan uji berganda Duncan's. Hasil penelitian didapatkan fermentasi dengan *Aspergillus niger* 1% BK dapat menurunkan kandungan serat kasar pada campuran onggok dan daun singkong sebesar 33,39% serta dapat menigkatkan kandungan protein kasar bahan pakan fermentasi. Respon terbaik pada campuran onggok dan daun singkong terhdap kualitas kimia bahan kering, serat, dan protein didapatkan pada campuran onggok 40% + daun singkong 60% + *Aspergillus niger* 1% BK yang menghasilkan protein 20,48% dengan rendah serat sebesar 10,81%.

Kata Kunci: *Aspergillus niger, Fermentasi, Serat Kasar, Protein Kasar*

ABSTRACT

THE EFFECT OF VARIOUS MIXTURES OF FERMENTED *ASPERGILLUS NIGER* CASSAVA LEAVES ON QUALITY DRY METTER, ROUGH FIBER, AND ROUGH PROTEIN

By

HENDRO PRASTIO

This study aimed to determine the effect of mixed fermented cassava leaves using *Aspergillus niger* on chemical quality. This research was carried out in August-September 2021 at the Animal Nutrition and Feeding Laboratory, Department of Animal Husbandry, Faculty of Agriculture, University of Lampung. The experimental design used was a completely randomized design (CRD) with 5 treatments and 3 replications. The treatments were cassava leaves without mixture + *Aspergillus niger* 1% dry matter (DM) (P0), cassava leaves without mixture + *Aspergillus niger* 1% DM (P1), cassava waste 20% + cassava leaves 80% + *Aspergillus niger* 1% DM (P2), cassava waste 40% + cassava leaves 60% + *Aspergillus niger* 1% DM (P3), and 60% cassava leaves + 40% cassava leaves + *Aspergillus niger* 1% DM (P4). The variables observed in this study included dry matter, crude fiber, and crude protein from mixed fermented cassava leaves and waste. The data obtained were analyzed using analysis of variance with a significance level of 1% or 5% and continued with Duncan's multiple range test. The results showed that fermentation with *Aspergillus niger* 1% DM could reduce the crude fiber content in the mixture of cassava waste and cassava leaves by 33.39% and could increase the crude protein content of fermented feed ingredients. The best response to a mixture of cassava waste and cassava leaves on the chemical quality of dry matter, crude fiber, and crude protein was found in a mixture of 40% cassava leaves + 60% cassava leaves + *Aspergillus niger* 1% DM which produced 20.48% crude protein with 10.81% crude fiber.

Keywords : *Aspergillus niger, Fermentation, Crude Fiber, Crude Protein*