ABSTRAK

PENGARUH JENIS KAPANG (*Aspergillus niger* dan *Aspergillus oryzae)* DAN VARIETAS DAUN SINGKONG TERHADAP LEMAK KASAR DAN PROTEIN KASAR DAUN SINGKONG TERFERMENTASI

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Penelitian ini bertujuan untuk mengetahui pengaruh fermentasi 3 varietas daun singkong menggunakan *Aspergillus niger* dan *Aspergillus oryzae* terhadap kadar lemak kasar dan protein kasar. Penelitian ini dilaksanakan pada Oktober 2024--Desember 2024 di Laboratorium Nutrisi dan Makanan Ternak, Jurusan Peternakan, Fakultas Pertanian, Universitas Lampung. Percobaan yang digunakan adalah Rancangan Acak Lengkap (RAL) pola faktorial 2x3 yang menghasilkan 6 faktorial dengan 3 kali ulangan. Perlakuan yang diberikan yaitu AIB1 (*Aspergillus niger* 30 gram + daun singkong Garuda 3 kg), AIB2 (*Aspergillus niger* 30 gram + daun singkong Karet 3 kg), AIB3 (*Aspergillus niger* 30 gram + daun singkong Thailand 3 kg), A2B1 (*Aspergillus oryzae* 30 gram + daun singkong Garuda 3 kg), A2B2 (*Aspergillus oryzae* 30 gram + daun singkong Karet 3 kg), A2B3 (*Aspergillus oryzae* 30 gram + daun singkong Thailand 3 kg). Variabel yang diamati pada penelitian ini meliputi lemak kasar dan protein kasar dari 3 varietas daun singkong terfermentasi. Data yang diperoleh dianalisis menggunakan analisis ragam dengan taraf nyata 5% dan dilanjutkan uji berganda Duncan's. Perlakuan A1B1, A1B2, A1B3, A2B1, A2B2, dan A2B3 berturut-turut menghasilkan nilai lemak kasar sebesar 8,22%, 12,01%, 15,95%, 10,79%, 13,39%, dan 5,32%. Sementara itu, untuk protein kasar, perlakuan yang sama menunjukkan hasil 27,58%, 25,43%, 24,05%, 26,85%, 25,10%, dan 20,50%. Data yang diperoleh dianalisis dengan Analysis of Variance (ANOVA) dan dibuat histogram untuk dianalisis secara deskriptif. Pengaruh jenis kapang (*Aspergillus niger* dan *Aspergillus oryzae*) dan varietas daun singkong tidak berpengaruh nyata (P>0,05) terhadap penurunan kadar lemak kasar dan peningkatan kadar protein kasar daun singkong terfermentasi.

Kata Kunci: *Aspergillus niger, Aspergillus oryzae, Fermentasi, Daun Singkong, Lemak Kasar, Protein Kasar.*

ABSTRACT

THE EFFECT OF MOLD TYPES (*Aspergillus niger* and *Aspergillus oryzae*) AND CASSAVA LEAF VARIETIES ON CRUDE FAT AND CRUDE PROTEIN OF FERMENTED CASSAVA LEAVES

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This study aims to determine the effect of fermentation of 3 varieties of cassava leaves using Aspergillus niger and Aspergillus oryzae on crude fat and crude protein levels. This study was conducted in October 2024--December 2024 at the Animal Nutrition and Feed Laboratory, Department of Animal Husbandry, Faculty of Agriculture, University of Lampung. The experiment used a Completely Randomized Design (CRD) with a 2x3 factorial pattern which produced 6 factorials with 3 replications. The treatments given were AIB1 (Aspergillus niger 30 grams + Garuda cassava leaves 3 kg), AIB2 (Aspergillus niger 30 grams + Karet cassava leaves 3 kg), AIB3 (Aspergillus niger 30 grams + Thai cassava leaves 3 kg), A2B1 (Aspergillus oryzae 30 grams + Garuda cassava leaves 3 kg), A2B2 (Aspergillus oryzae 30 grams + Karet cassava leaves 3 kg), A2B3 (Aspergillus oryzae 30 grams + Thai cassava leaves 3 kg). The variables observed in this study included crude fat and crude protein from 3 varieties of fermented cassava leaves. The data obtained were analyzed using analysis of variance with a significance level of 5% and continued with Duncan's multiple test. Treatments A1B1, A1B2, A1B3, A2B1, A2B2, and A2B3 respectively produced crude fat values of 8.22%, 12.01%, 15.95%, 10.79%, 13.39%, and 5.32%. Meanwhile, for crude protein, the same treatment showed results of 27.58%, 25.43%, 24.05%, 26.85%, 25.10%, and 20.50%. The data obtained were analyzed by Analysis of Variance (ANOVA) and histograms were made for descriptive analysis. The effect of mold types (Aspergillus niger and Aspergillus oryzae) and cassava leaf varieties did not have a significant effect ($P>0.05$) on reducing crude fat levels and increasing crude protein levels of fermented cassava leaves.

Keywords: *Aspergillus niger, Aspergillus oryzae, Fermentation, Cassava Leaves, Crude Fat, Crude Protein.*