

ABSTRACT

EFFECT OF CORN COB AND TOFU BY PRODUCT MIXTURE COMPOSITION ON DRY MATTER, CRUDE PROTEIN, AND CRUDE FIBER CONTENT OF FERMENTATION PRODUCTS

By

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This research aims to determine the effect of the composition of a mixture of corn cobs and tofu by product on the content of dry matter, crude protein, and crude fiber of fermentation products. This research was conducted on January 12--February 03, 2023, at the Animal Nutrition and Food Laboratory, Department of Animal Husbandry, Faculty of Agriculture, University of Lampung. This study used a completely randomized design (CRD) consisting of 4 treatments and 5 replicates. The treatments were P0: 50% corn cob + 50% tofu by product (control), P1: 50% corn cob + 50% tofu by product + 4% tempe yeast, P2: 60% corn cob + 40% tofu by product + 4% tempe yeast, and P3: 70% corn cob + 30% tofu by product + 4% tempe yeast. The observed variables included dry matter, crude protein, and crude fiber. The data obtained were analyzed using Analysis of Variance (ANOVA) and continued with Duncan's Multiple Range Test (DMRT). The mixed composition of corn cob and tofu by product showed significantly different results ($P < 0.05$) on dry matter and crude fiber and significantly different ($P < 0.05$) on crude protein of fermentation products. Based on the research that has been done, it can be concluded that the composition of a mixture of corn cobs and tofu by product affects the dry matter, crude protein, and crude fiber content of fermentation products, and the best results based on the DMRT test are in P2 on crude protein and crude fiber, and in P3 on dry matter.

Keywords: Crude fiber, Crude protein, Dry matter, Mixture of corn cob and tofu by product, and Tempe yeast.

ABSTRAK

PENGARUH KOMPOSISI CAMPURAN TONGKOL JAGUNG DAN AMPAS TAHU TERHADAP KANDUNGAN BAHAN KERING, PROTEIN KASAR, DAN SERAT KASAR PRODUK FERMENTASINYA

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Penelitian ini bertujuan untuk mengetahui pengaruh komposisi campuran tongkol jagung dan ampas tahu terhadap kandungan bahan kering, protein kasar, dan serat kasar produk fermentasinya. Penelitian ini dilaksanakan pada 12 Januari--03 Februari 2023, di Laboratorium Nutrisi dan Makanan Ternak, Jurusan Peternakan, Fakultas Pertanian, Universitas Lampung. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) yang terdiri dari 4 perlakuan dan 5 ulangan. Perlakuan yang diberikan yaitu P0: tongkol jagung 50% + ampas tahu 50% (kontrol), P1: tongkol jagung 50% + ampas tahu 50% + ragi tempe 4%, P2: tongkol jagung 60% + ampas tahu 40% + ragi tempe 4%, dan P3: tongkol jagung 70% + ampas tahu 30% + ragi tempe 4%. Peubah yang diamati meliputi bahan kering, protein kasar, dan serat kasar. Data yang diperoleh dianalisis menggunakan Analisis Ragam (ANOVA) dan dilanjutkan dengan Uji Jarak Berganda Duncan (DMRT). Komposisi campuran tongkol jagung dan ampas tahu menunjukkan hasil berbeda nyata ($P < 0,05$) terhadap bahan kering dan serat kasar serta berbeda sangat nyata ($P < 0,05$) terhadap protein kasar produk fermentasinya. Berdasarkan penelitian yang telah dilakukan dapat disimpulkan bahwa komposisi campuran tongkol jagung dan ampas tahu berpengaruh terhadap kandungan bahan kering, protein kasar, dan serat kasar produk fermentasinya, dan hasil terbaik berdasarkan uji DMRT yaitu pada P2 terhadap protein kasar dan serat kasar, dan pada P3 terhadap bahan kering.

Kata Kunci: Bahan kering, Campuran tongkol jagung dan ampas tahu, Protein kasar, Ragi tempe, dan Serat kasar