ABSTRACT

FORMULATION AND PRODUCTION OF CHICKEN FEED BASED ON TOFU DREGS AND CASSAVA DREGS AND PRODUCTION COST ANALYSIS

By

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Tofu dregs and cassava dregs still have high nutritional content that can be used as an alternative raw material for chicken feed. Processing of chicken feed based on tofu dregs and cassava dregs by-products is an alternative form of utilization of agro-industrial by-products. This study aims to determine the effect of fermentation of a mixture of tofu dregs and tapioca onggok on the nutritional content of chicken feed and to analyze its production costs. The mixture was fermented using Aspergillus niger mold for 4 days with 7 treatments and 3 replications. The fermentation results were tested proximate including moisture, ash, fat, protein, carbohydrate, and crude fiber content. In addition, mineral analysis was conducted using XRF instrument and production cost analysis using full costing and variable costing methods. The results showed that fermentation increased crude protein content by 19.11%, ash content by 102.56%, and calcium content by 118.97%, but decreased crude fiber content by 40.07% and crude fat content by 15.75%. Despite the improvement in nutritional quality, fiber and crude fat levels have not met the SNI 8290-1: 2024 standard. Feed production costs using the full costing method amounted to Rp1,136,350, while the variable costing method amounted to Rp136,350. The use of fermentation is proven to increase the nutritional value of feed and is economically efficient.

Keywords : tofu dregs, cassava dregs, chicken feed, and production cost.

ABSTRAK

FORMULASI DAN PRODUKSI PAKAN AYAM BERBASIS AMPAS TAHU DAN ONGGOK TAPIOKA SERTA ANALISIS BIAYA PRODUKSI

Oleh

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Ampas tahu dan onggok tapioka masih memiliki kandungan nutrisi cukup tinggi yang dapat dijadikan alternatif sebagai bahan baku pakan ayam. Pengolahan pakan ayam berbasis ampas tahu dan onggok tapioka merupakan salah satu bentuk alternatif dari pemanfaatan hasil samping agroindustri. Penelitian ini bertujuan untuk mengetahui pengaruh fermentasi campuran ampas tahu dan onggok tapioka terhadap kandungan nutrisi pakan ayam dan untuk menganalisis biaya produksinya. Campuran difermentasi menggunakan kapang *Aspergillus niger* selama 4 hari dengan 7 perlakuan dan 3 ulangan. Hasil fermentasi diuji secara proksimat meliputi kadar air, abu, lemak, protein, karbohidrat, dan serat kasar. Selain itu, dilakukan analisis mineral menggunakan instrument XRF dan analisis biaya produksi dengan metode *full costing* dan *variable costing*. Hasil menunjukkan bahwa fermentasi meningkatkan kadar protein kasar sebesar 19,11%, kadar abu sebesar 102,56%, dan kadar kalsium sebesar 118,97%, tetapi menurunkan kadar serat kasar sebesar 40,07% dan kadar lemak kasar sebesar 15,75%. Meskipun terjadi peningkatan kualitas nutrisi, kadar serat dan lemak kasar belum memenuhi standar SNI 8290-1:2024. Biaya produksi pakan dengan metode *full costing* sebesar Rp1.136.350, sedangkan dengan metode *variable costing* sebesar Rp136.350. Penggunaan fermentasi terbukti meningkatkan nilai gizi pakan dan efisien secara ekonomi sebagai pakan alternatif ayam.

Kata kunci : ampas tahu, onggok tapioka, pakan ayam, dan biaya produksi.