

Pengaruh Penambahan Ekstrak Kunyit (*Curcuma longa*) dan Lama Penyimpanan Secara Anaerobik Terhadap Kualitas Kimia Pakan Tambahan Protein Fermentasi

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan kunyit dan lama penyimpanan secara anaerobik terhadap kualitas kimia pakan protein fermentasi. Hipotesis penelitian ini adalah penambahan kunyit pada pakan protein fermentasi yang disimpan dalam kondisi kemasan anaerobik dengan cara vakum selama penyimpanan 20 hari dapat menghambat penurunan kualitas pakan protein fermentasi (PPF). Penelitian menggunakan dua perlakuan yaitu pakan protein fermentasi tanpa penambahan kunyit dan pakan protein fermentasi dengan penambahan 3,0% kunyit. Masing-masing perlakuan PPF disimpan dengan kondisi anaerobik selama 0 sampai 20 hari dengan 3 ulangan. Variabel yang diamati meliputi kandungan bahan kering, bahan organik, protein kasar, kandungan cemaran aflatoksin, nilai pH PPF. Data dianalisis menggunakan analisis variansi dengan rancangan acak pola faktorial dan bila terdapat perbedaan variabel secara nyata karena perlakuan maka dilanjutkan dengan uji *Duncan's multiple range test* (DMRT). Hasil penelitian menunjukkan bahwa perlakuan penambahan kunyit dan lama penyimpanan tidak mempengaruhi kadar bahan organik dan lemak kasar PPF. Pakan protein fermentasi dengan penambahan kunyit menunjukkan bahan kering dan protein kasar lebih tinggi daripada PPF yang tidak ditambah kunyit selama penyimpanan. Nilai derajat keasaman sampai hari 20 berada pada kisaran 4,5 baik dengan penambahan dan tanpa penambahan kunyit PPF. Penambahan kunyit berpengaruh dalam mengurangi cemaran aflatoksin pada PPF sampai dengan 20 hari. Berdasarkan penelitian dapat disimpulkan bahwa penambahan kunyit memberikan performa terbaik pada PPF yang disimpan selama 20 hari dengan kemasan secara anaerobik.

Kata kunci : protein fermentasi, kunyit (*curcuma longa*), anaerobik.

Effect of Tumeric Extract Addition (*Curcuma longa*) and Anaerobic Storage Time on The Chemical Quality of Fermented Protein Supplementary Feed

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ABSTRACT

This study aimed to determine the effect of the addition of tumeric and storage time of fermented protein feed packaged anaerobically on the chemical quality. The hypothesis of this study is the addition of turmeric to fermented protein feed stored in anaerobically packaging for 20 days can inhibit the decrease of the quality of fermented feed (PPF). Anaerobic condition was made by vacum technique, the study used two treatments namely fermented protein feed without the addition of tumeric and fermented protein feed with the addition of 3,0 % turmeric. Each PPF treatment was stored under anaerobic conditions for 0 to 20 days with 3 replications. The observed variable included dry matter content, organic matter, crude protein, aflatoxin contamination, pH value. Data were analyzed using analysis of variance with factorial randomized design and if there were significant differences in variables due to treatment then it was followed by Duncan's multiple range test (DMRT). The result showed that the addition of tumeric and storage time did not affect the organic matter and extract ether content of PPF. Treatment of PPF group showed the higher that dry matter and crude protein compare to control (without tumeric) during storage. Average pH until 20th day was 4.5, both with addition and without addition of tumeric. Tumeric addition in the PPF proved to decrease of aflatoxin contamination in storage for 20 days. Based on the research it can be concluded that the addition of tumeric showed the best performance on PPF that was anaerobically stored for 20 days.

Key Words: Fermented protein, Tumeric (*curcuma longa*), Anaerobic