KUALITAS FISIK DAN KIMIA UREA MOLASES MULTINUTRIEN BLOK DENGAN KOMPOSISI MOLASES DAN UREA YANG BERBEDA

Miko Andini Putra
17/409770/PT/07359

INTISARI

Penelitian ini bertujuan untuk mengetahui proporsi terbaik dalam penggunaan molases dan urea pada kualitas fisik dan kimia urea molases multinutrien blok (UMMB). Penelitian ini dilaksanakan di Laboratorium Teknologi Makanan Ternak, Fakultas Peternakan, Universitas Gadjah Mada, Yogyakarta. Rancangan percobaan yang digunakan pada penelitian ini adalah rancangan acak lengkap pola faktorial 4×4 dengan faktor pertama berupa level molases (5, 15, 25, dan 35%) dan faktor kedua berupa level urea (0, 2,5, 5, dan 7,5%). Parameter yang diamati meliputi kualitas fisik (warna, bau, kontaminasi, tekstur, kekerasan, densitas, absorpsi air, dan stabilitas air) dan kandungan bahan kering. Data kualitas fisik yang meliputi warna, bau, tekstur, dan kontaminasi dianalisis secara deskriptif. Data kekerasan, densitas, stabilitas air, absorpsi air, serta kandungan bahan kering UMMB diuji secara statistik menggunakan *analysis of variance* dengan derajat signifikansi 5%. Hasil penelitian menunjukkan penambahan molases dan urea menunjukkan adanya pengaruh nyata (P<0,05) terhadap uji kualitas fisik (warna, bau, tekstur, kekerasan, densitas, absorpsi air, dan stabilitas air) dan kandungan bahan kering UMMB. Level molases 25% memberikan hasil terbaik dari semua perlakuan, dan penambahan urea 5% cukup memberikan hasil yang baik dalam semua uji UMMB. Formulasi UMMB dengan kualitas terbaik yaitu dengan menggunakan level molases 25% dan urea 2,5 hingga 5%.

Kata kunci: Kualitas fisik, Urea molases multinutrien blok, Molases, Urea.

Quality of Urea Molasses Multinutrient Block Using Different Level of Molasses and Urea

Miko Andini Putra
17/409770/PT/07359

ABSTRACT

This study aims to determine the best proportion of molasses and urea used in urea molasses multinutrient block (UMMB) based on it's physical and chemical quality. This research will be carried out at the Feed Technology Laboratory, Faculty of Animal Science, Universitas Gadjah Mada, Yogyakarta. The experimental design used in this study was a 4×4 factorial completely randomized design with the first factor was molasses (15, 25, 35, and 45%) and the second factor was urea (0, 5, 10, and 15%). Parameters observed were physical quality (color, odor, contamination, texture, hardness, density, water absorption, and water stability) and dry matter content. Physical quality data (color, odor, texture, and contamination) were analyzed descriptively. Data of hardness, density, water stability, water absorption, and dry matter content were tested statistically using analysis of variance with a significance degree of 5%. The results showed that molasses and urea addition in UMMB affected ($P<0.05$) the physical quality test (color, odor, texture, hardness, density, water absorption, and water stability) as well as the dry matter content of UMMB. Molasses inclusion at 25% resulted in the best UMMB quality. On the other hand, urea inclusion at 5% was good enough in showing good results in all UMMB tests. The best quality of UMMB in this experiment were those formulated with 25% molasses and 2.5 to 5% urea.

Keywords: Physical quality, Urea molasses multinutrient block, Molasses, Urea.