

**EVALUASI PENAMBAHAN *HIGH QUALITY FEED SUPPLEMENT*  
MENGANDUNG *MINERAL PREMIX ENRICHED WITH*  
*ESSENTIAL OIL* TERHADAP PARAMETER  
BIOKIMIA DARAH DAN HEMATOLOGI  
SAPI BRAHMAN CROSS**

Galih Satria Ramadhan  
13/349194/PT/06566

**INTISARI**

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian pakan dengan penambahan *high quality feed supplement* (HQFS) mengandung *mineral premix enriched with essential oil* (MPEO) terhadap parameter biokimia darah dan hematologi pedet sapi Brahman Cross. *High quality feed supplement* terdiri dari bahan pakan sumber energi dan *mineral mix* yang diperkaya *essential oil*. *Mineral mix* terdiri dari Ca, P, K, Mg, Na, N, S, Fe, Zn, Cu dan Se. Penelitian ini menggunakan 20 ekor sapi Brahman Cross (betina, BB:  $\pm 87$  kg, umur:  $\pm 8$  bulan) yang dibagi menjadi 2 grup perlakuan yaitu kontrol (hijauan 60% dan konsentrat 40%) dan HQFS (hijauan 60%, konsentrat 36% dan HQFS 4%), dan dibagi menjadi 2 blok kandang dengan 2 kali ulangan. Parameter yang diamati yaitu biokimia darah yang meliputi glukosa, protein, albumin, kreatinin, asam urat, fosfat, kolesterol dan trigliserida, serta hematologi yang meliputi leukosit, eritrosit, hemoglobin, hematokrit, *mean corpuscular volume* (MCV), *mean corpuscular hemoglobin* (MCH), *mean corpuscular hemoglobin concentration* (MCHC), limfosit dan neutrofil. Data hasil penelitian di analisis menggunakan uji *Randomized Complete Block Design* (RCBD). Hasil penelitian menunjukkan bahwa profil biokimia darah dan hematologi pada sapi pedet Brahman Cross dengan pemberian HQFS dan sapi pedet kontrol memiliki nilai yang normal. Peningkatan kadar albumin, kreatinin dan hemoglobin dalam darah sapi pedet perlakuan menunjukkan bahwa HQFS mampu memperbaiki kesehatan sapi Brahman Cross yang dilihat dari profil biokimia darah dan hematologinya.

Kata kunci: Sapi Brahman Cross, Biokimia Darah, Hematologi, *High Quality Feed Supplement*, *Mineral Premix enriched with Essential Oil*.

**EVALUATION OF THE ADDITION OF HIGH QUALITY FEED SUPPLEMENT  
CONTAINING MINERAL PREMIX ENRICHED WITH  
ESSENTIAL OIL ON BLOOD BIOCHEMISTRY  
AND HEMATOLOGY PARAMETERS  
OF BRAHMAN CROSS CATTLE**

Galih Satria Ramadhan  
13/349194/PT/06566

**ABSTRACT**

This study aimed to determine the effect of feeding with the addition of high quality feed supplement (HQFS) containing mineral premix enriched with essential oil (MPEO) on blood biochemistry and hematology parameters of Brahman Cross cattle. High quality feed supplement consist of energy sources and mineral mix ingredients which are enriched with essential oil. Mineral mix consists of Ca, P, K, Mg, Na, N, S, Fe, Zn, Cu and Se. This study used 20 Brahman Cross calves (female, weight:  $\pm$  87 kg, age:  $\pm$  8 months) which were divided into 2 treatment groups namely control (forage 60% and concentrate 40%) and HQFS (forage 60%, concentrate 36% and HQFS 4%), and divided into 2 pen blocks with 2 replications. Parameters observed were blood biochemistry which included glucose, protein, albumin, creatinine, uric acid, phosphate, cholesterol and triglycerides, and hematology which included leukocytes, erythrocytes, hemoglobin, hematocrit, mean corpuscular volume (MCV), mean corpuscular hemoglobin (MCH), mean corpuscular hemoglobin concentration (MCHC), lymphocytes and neutrophils. The research data was analyzed using Randomized Complete Block Design (RCBD) test. The results showed that the profile of blood biochemistry and hematology in Brahman Cross calves with HQFS and control calves had normal values. Increased levels of albumin, creatinine and hemoglobin in the blood of calves treatment showed that HQFS was able to improve the health of Brahman Cross cattle as seen from the profile of blood biochemistry and hematology.

**Keywords:** Brahman Cross Cattle, Blood Biochemistry, Hematology, High Quality Feed Supplement, Mineral Premix enriched with Essential Oil.