

PENGARUH PEMBERIAN *HIGH QUALITY FEED SUPPLEMENT* (HQFS) DAN *PREMIX* MINERAL TERHADAP PROFIL METABOLIT DARAH SAPI BETINA SIMMENTAL-PERANAKAN ONGOLE

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian *High Quality Feed Supplement* (HQFS) dan *premix mineral* terhadap profil metabolit darah sapi betina Simmental-Peranakan Ongole. Penelitian ini dilaksanakan selama tiga bulan di empat kandang kelompok ternak di Kecamatan Ngemplak, Kecamatan Ngaglik, dan Kecamatan Pakem, Kabupaten Sleman. Materi yang digunakan adalah 12 ekor sapi betina bangsa SimPO dengan nilai *body condition score* (BCS) 2,5-4 dan bobot badan $371,00 \pm 26,17$ kg. Sapi-sapi betina SimPO dibagi menjadi 3 kelompok perlakuan yang dibedakan dari ransum pakan secara acak dengan 4 pengulangan yang meliputi P0 (hijauan 60%+ konsentrat peternak 40%), P1 (hijauan 60% + konsentrat komersial 28% + HQFS 12%), dan P2 (hijauan 60%+ konsentrat komersial 28% + HQFS 12% + 0,5% *premix mineral*). Variabel yang diamati pada penelitian ini adalah profil metabolit darah yang meliputi glukosa, total protein, albumin, kolesterol, trigliserida, urea, kalsium (Ca), dan fosfor (P). Data yang diperoleh kemudian dianalisis dengan Rancangan Acak Lengkap (RAL) kemudian diuji lanjut dengan *Duncan's Multiple Range Test* (DMRT) jika tidak terdapat perbedaan. Hasil penelitian menunjukkan jika pemberian HQFS dan *premix mineral* memberikan pengaruh yang nyata ($P < 0,05$) terhadap total protein. Tidak ada perbedaan yang nyata antar perlakuan pada kadar glukosa, albumin, kolesterol, trigliserida, Ca dan P. Peningkatan kadar total protein menunjukkan bahwa pemberian HQFS dan *premix mineral* dapat mencukupi kebutuhan nutrisi dan menjaga kadar normal metabolit darah pada sapi betina SimPO.

Kata kunci : HQFS, *premix mineral*, metabolit darah, sapi SimPO

ADDITIONAL EFFECT OF HIGH QUALITY FEED SUPPLEMENT (HQFS) AND MINERAL *PREMIX* ON THE BLOOD METABOLITE PROFILE OF SIMMENTAL-ONGOLE CROSSBRED COWS

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ABSTRACT

This research purpose was to determine the additional effect of HQFS and mineral *premix* in the ration on the blood metabolite profile of Simmental-Ongole crossbred cow. This research was conducted at four farmer group pens located in Ngemplak Subdistrict, Ngaglik Subdistrict, Pakem Subdistrict, Sleman Regency. The materials used in this research is 12 Simmental-Ongole crossbred cows with body condition score (BCS) 2,5-4 and average weight of $371,00 \pm 26,17$ kg. Simmental-Ongole crossbred cows were divided into 3 groups of treatment which were differentiated based on ration with 4 replications which consists of P0 (forage 60% + farmer's ration 40%), P1 (forage 60% + commercial concentrate 28% + HQFS 12%), and P2 (forage 60% + commercial concentrate 28% + HQFS 12% + 0,5% mineral *premix*). The variable observed were blood metabolite profile which consists of glucose, total protein, albumin, cholesterol, triglyceride, urea, calcium (Ca), and phosphorus (P). The obtained data was analyzed with Complete Randomized Design (CRD) and then further analyzed with Duncan's Multiple Range Test (DMRT) to determine the difference between each treatment. The result showed the addition of HQFS and mineral *premix* had significant effect ($P < 0,05$) on total protein. There was no significant effect between treatment on the level of glucose, albumin, triglyceride, cholesterol, urea, Ca, and P. All blood metabolite parameters in each group after treatment period are still on normal range. The increased level of total protein showed HQFS and mineral *premix* are able to suffice nutrient requirement and maintain blood metabolite level on normal range in Simmental-Ongole crossbred cow.

Key word : HQFS, mineral *premix*, blood metabolite, Simmental-Ongole Breed